AMERICAN AGRICULTURIST.

Agriculture is the most healthful, the most useful, and the most noble employment of man.—WASHINGTON.

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SUBSTITUTES FOR A SHORT HAY CROP.

IT is indisputable, that the long and almost unexampled drought throughout all save the most northern part of the United States, has cut short the crop of hay. Clover is hardly half as heavy as it was last year, and timothy and red top have suffered more or less. Many fields are represented as not worth mowing. Now a hard winter and late spring may possibly follow; and if they should, there will be a great want of fodder to carry stock through them, and much suffering must necessarily ensue, unless substitutes are provided for at once by the prudent husbandman.

For this we know nothing equal to oats and corn. There is plenty of time for these to mature sufficiently for fodder, if sown immediately on good ground well plowed and harrowed. We should select the earliest varieties of corn, and sow it in drills six inches apart, in preference to broadcast, as it grows better and faster, and ripens soonest in drills. Both the oats and corn should be steeped three days previous to sowing, in water nearly blood warm, with saltpetre dissolved in it, at the rate of an ounce to a gallon; then rolled in ashes or plaster, and immediately sown and well covered. This will accelerate their coming up, and add much to the rapidity of growth. If guano, at the rate of 300 lbs. per acre, made into a compost of one part to twenty of rich fine soil, or any other fertilizing material, could be given for a top-dressing, it would add to the early maturing and burthen of the crop.

Nothing is superior for horse feed to oats cut when the berry is in the milk, and then chopped up with a broad axe, or in a straw cutter. We have sown oats as late as the 15th July, and got good crops for this purpose. They may be mown with the scythe, and cured and stacked like hay. Caution should be used in drying them well before stacking, and as they are put away it is a good thing to scatter 4 to 6 quarts of fine salt per ton, on the straw. If cradled and bound in sheaves, these should be made small, otherwise, owing to the lateness of the season, there is great liability to mould and mow burning. The corn may be left till frost comes, in hopes of getting young ears. It must then be cut up close to the ground, and bound in small shocks, and a few of these only set up together and as openly as possible, so as to let the air circulate freely through them. The stalks must be well dried before stacking, and 4 to 8 quarts of salt per ton to these would not be amiss when housed. We say nothing about buckwheat, as it is a grain so commonly sown at this season it is not necessary to mention it. Its straw is as valuable for fodder as that of the oat, being rated at 195 to 100 in comparison with good hay. For an excellent article on this, see Vol. ii., page 193.

Millet is an excellent crop sown broadcast like oats. Its straw for fodder in comparison with good hay is as 250 to 100; oat straw is as 195 to 100.

Turnips may be cultivated as a substitute for hay. It is too late to sow any other than the common white field variety. Ashes is the best manure for these, and plaster at the rate of two to three bushels per acre will have a partial effect if the season be tolerably moist, otherwise very little. A top-dressing of rich vegetable earth, guano compost, and well rotted stable manure, is good; sowing, however, in a newly cleared piece of ground, with sheep folded on it a week or two previously, is the best preparation that can be devised for a turnip crop. They ought to be fed out early in the season, otherwise they become pithy and are nearly valueless; besides, it is difficult to keep them during severe weather, and being of a cold watery nature, they are not near so beneficial in our frosty winters as in England, where the weather is so much milder.

WHY DOES NOT HAY CAUSE THE PRODUCTION OF MORE MILK?

The above is a highly important query for the farmer, and a true solution of it would be of immense value to him. The great advantages of soiling cattle is in the mouth of every one who has tried it; yet one of its greatest claimed merits is the additional quantity of fodder a given quantity of land will yield in food, which is cut and carried from the land for consumption, instead of being fed off where it grows. The cropping of the grass before it is properly matured; the injury done to the stalks and leaves by the hoofs of the cattle; and the offensive state in which much of it frequently is from their droppings, and its trampled and soiled condition, are important items which go to make up the estimate in favor of the soiling system. The important query then arises, why should not the hay which has been cut at the most proper time, well secured, and properly fed, produce as great a quantity of milk, as the grass would have done from which the hay is made? Or is there a fallacy on this subject, and cannot cows be made to take or digest as much nourishment in the form of hay, as in its fresh or green state? That grass should lose any of its nutritive qualities in drying, is contrary to philosophy and experience, so far as it has been accurately noted; for Daubenton, a half century since, ascertained from actual experience, that a sheep would eat 8 lbs. of fresh cut grass in 24 hours, and 2 lbs. of hay in the same time; and that the grass lost just three-fourths of its weight in drying, so that the quantity of nourishment was equal in both conditions of the fodder. It is the result of our own observation, that on similar clay land, well put down to grass, and in moderate condition, two acres of pasture will sustain a cow 7 months in the year, and one acre of meadow will keep her through the winter, or 5 months, the average time of foddering in latitude about 42° 45′ in Western New York. But in summer, the cow is yielding milk in large quantities; in the winter, scarcely any. On every physiological principle, other things being equal, the cow ought to consume, and probably does, a larger quantity of food to produce the same results, in consequence of the increased demands for the carbon and hydrogen of the food in respiration, which is necessary to sustain the vital heat. Yet in summer, the cow takes much more exercise when driven to and from pasture, and in her rambles over it, than when confined in the yard or stall in winter, and this may be a full equivalent for the former.

May not the solution of this matter rest, in part, in the probable fact, that the stomach digests the grass much more readily, and in larger quantities, and at much less expense of the vital powers, than it does the hay; and that it can thus assimilate a larger amount of nutritive matter from grass in its green, than in its dry state? Daubenton's experiment halted at this point. He found his sheep ate the same quantity in each condition of the grass; but he did not ascertain whether the sheep were making as much wool and flesh, or the ewes giving as much milk in their food in its cured as in its fresh state; nor are we aware of any satisfactory experiment which does. It has been recently ascertained, that as grasses mature and dry, a certain proportion of the leaves and stalks, which in their green state are highly nutritious, are converted into woody fibre, which in the stomachs of most ruminating animals is generally indigestible, and passes off unappropriated by the system, with the fœces. May not this circumstance have something to do with explaining this question?

Would not the cutting and steaming of hay do much to reduce the hay as nearly to its original state as grass as possible, though it would still leave it with the probably irremediable objection, of the conversion of a portion of its formerly nutritious qualities into woody fibre? In the absence of an agricultural establishment, under strictly scientific management, with an experimental farm attached, where this with numerous other problems could be solved to the great advancement of practical husbandry, some of our leading agriculturists, who are in possession of ample means, and zeal, and accuracy of observation, fully adequate to the object, might resolve some of our doubts on this subject. A capacious bin or vat, steam tight, capable of holding a ton of hay, easy of access and delivering of its contents, with an economical system of heating it, is all that would be necessary to prepare the hay. Bran or meal scattered through the hay and subject to the same treatment, would add much to its value.

To give this experiment its full value, a comparison, accurately noted, should be made, of hay fed in its dry, uncut state; fed dry and cut; steamed uncut; cut and steamed; steamed with bran or meal; each trial to be made with a distinct class or classes of cows, for several weeks in succession, and each class to go through all the various forms of feeding; and the results in quantity and quality of milk to be given, under each system of feeding; and the prices of food and its quality, and cost of preparing. Whoever of our enterprising and wealthy agriculturists will give to the public the above results under circumstances to command implicit confidence, will, in the somewhat sarcastic phrase of Dean Swift, confer a greater benefit on the human family, than the whole race of politicians put together.

PROPAGATION OF PLANTS AND TREES BY LEAVES.

Bradley, who translated Agricola's Husbandry in 1721, affirms that he could propagate nearly all kinds of trees and plants by leaves. De Candolle admits that some may be thus propagated; but says, "the greater part of leaves when separated from their parent stock are incapable of it." F. Mandirola, however, gives us the manner of propagating the citron melon tree leaf, in which he was entirely successful a century and a half ago. He says:

"I took for that purpose a sort of little flower-pot full of the best sifted earth; I planted in it some leaves of those kinds of trees, with their stalks so deep that the third part of the leaf was covered with earth; over that pot I fastened a small pitcher full of water, so as that it might drop directly down into the middle of the pot, and the hollow which was made by the falling of the drops I continually filled up with fresh earth; thus they cost me but little trouble, and they all shot up and grew very well. I pursued it with the greatest patience in the world, and found that through a too often dropping of the water, the leaves began to rot, and so wasted away of themselves by little and little, so as that at last nothing was left but the stems; but it having been observed since, that from the callous matter that came

forth at the bottom, both roots and branches shot out, it appears that *all exotic leaves* may at any time be converted into trees. For this operation I make choice of the months of July, August, and November; but those who have stoves and greenhouses may perform it even in winter, and in that case they shoot the better in the spring. Those who have a mind to do it in the spring will have some success; but it is not so very sure, which ought to be chiefly ascribed to the inconstancy of that season."

Now this experiment seems a perfectly rational one on a little reflection. Growth can only be effected through a bud. This is formed not from the hard, woody fibre, but from the soft, cellular tissue of the plant. But this, and all future growth, must come through the action of the leaves, as these prepare and organize nutrition. The only difficulty is in the accuracy and delicacy of conducting the experiment; for the germ of existence is so feeble and minute, that the slightest variation in the process will be fatal. It is like the attempt to rear an infant of premature birth, with just enough of vitality to give evidence of its existence. The slighest excess or deficiency of appropriate nutriment will extinguish the feeble spark of life. The separation of the leaf from the stem is a great violence to nature; but if it can be kept alive a sufficient time, it must continue to obey the law of nature by organizing cellular matter, and this must go to the formation of a bud, and the tree follows of course. The advantage of using a twig with buds already formed, in which a larger amount of vitality is hoarded, is undoubtedly best where attainable. It is only for rare plants, to be extensively multiplied, that this mode of propagation can be justified.

AGRICULTURAL CHEMISTRY AND GEOLOGY.—No. I.

In a notice we gave some time since of the republication in this country of Professor Johnston's Catechism of Agricultural Chemistry and Geology for the use of Schools; we said as soon as we could find room, we should commence publishing a series of extracts from it, in hopes of rousing our readers to the study of this valuable little work, the price of which is only 18¾ cents, and it can be read through in three hours. Agricultural science is now placed within reach of every one, however limited his time and means. For fear of rendering the subject distasteful, we shall make up the extracts in homœopathic doses.

Q. What is agriculture?

A. Agriculture is the art of cultivating the soil.

Q. What is the object of the farmer in cultivating the soil?

A. The object of the farmer in cultivating the soil is, to raise the largest crops at the smallest cost, and with the least injury to the land.

Q. What ought the farmer especially to know, in order that he may attain this object?

A. The farmer ought especially to know the nature of the crops he raises, of the land on which they grow, and of the manures which he applies to the land.

Q. What is potash?

A. The common potash of the shops is a white powder, which has a peculiar taste called an *alkaline* taste, and which becomes moist, and at last runs to a liquid when exposed for a length of time to the air. It is obtained by washing wood ashes (the ashes left by wood when it is burned) with water, and afterwards boiling the liquid to dryness.

The teacher will here allow his pupils to taste the potash, that they may become familiar with the meaning of the word alkaline as applied to taste.

Q. What is soda?

A. The common soda of the shops is a glassy or *crystallized* substance, which has also an alkaline taste, but which, unlike potash, becomes dry and powdery by being exposed to the air. It is manufactured from sea salt.

The teacher will show a crystal of the common soda of the shops, and explain the meaning of the word *crystallized.*

Q. What is lime?

A. Lime or *quick*-lime is a white earthy substance, which is obtained by burning common limestone in the lime-kiln. It has a slightly burning taste, and becomes hot and *slakes* when water is poured upon it.

The teacher will exhibit a piece of quicklime, will allow his pupils to taste it, and will pour water upon it, that it may fall to powder. They will thus become familiar with the word *slake.*

Q. What is magnesia?

A. Magnesia is the white powder sold in the shops under the name of *calcined* magnesia. It has scarcely any taste, and is extracted from sea water and from some kinds of limestone rock called *Magnesian* limestones.

Southdown Sheep.—Mr. Frederick Easton, of Mount Morris, Livingston Co., N. Y., returned from England last month in the ship Victoria, Capt. Morgan. He brought with him six Southdown rams. They are very fine sheep, now two years old, and characterized by their fine forms; long thick fleeces, well adapted to resist the weather; good size and fineness of bone; with great stamina of constitution. Their wool is longer, softer, less wiry, and possesses more yolk and combing quality than *most* of the Southdowns imported into the United States. Their present fleeces would probably reach 9 to 11 lbs. These will fall off in weight some in this country, but will undoubtedly remain as high as 8 lbs. on an average. These sheep were bred in Dorsetshire by Mr. John Shitler, and came originally from the flocks of Mr. Hinman of the same shire. Mr. Easton has taken them to the valley of the Genesee to breed to a large flock of sheep. This would be a good move, in case mutton were valuable. Our view would be to breed sheep for their wool and not for the carcass. Yet Mr. Easton will be a benefactor by giving the means of breeding better mutton, and some day this will be of great importance in this country.

Mr. Easton also brought over two shepherd dogs, the one a dark grizzly-colored shaggy terrier-like *collie* dog pup, and the other a beautiful small-sized *tailless* slut, of a dark brown color, with tan muzzle, legs, and flanks.

How Plants Receive their Carbon.—Carbonic acid gas is taken up by plants in two ways. The leaves, and indeed, all the green parts, absorb it directly from the atmosphere; and it is absorbed also by the roots dissolved in the rain and dew which have refreshed the ground.

DORKING FOWLS.

Since spring opened, we have received so many letters of inquiry about Dorking fowls, that we have concluded to give what follows as a general answer to them.

At our special request, Captain Morgan, of the London packet ship Victoria, made an importation of a dozen of these superb fowls last October, for distribution among some of our friends. Only five, a cock and four hens, survived out of the twelve. These were large and fine, and evidently highly and carefully bred. Being so few on arrival, Capt. Morgan very kindly sent the whole lot to Mr. L. F. Allen, of Black Rock, to cross with the produce of those we brought home from England in 1841.

As Dorking fowls are likely to be in vogue now, we think it advisable to caution all those who wish to possess good ones, to be very careful what they buy. Choice birds are extremely difficult to be had, as we found to our cost when in England, and it was only by special favor we procured some at last. Capt. Morgan has been upward of two years endeavoring to obtain this importation, and finally succeeded only through a worthy clergyman, Mr. Courtney, of the town of Dorking, a passenger with him on a recent voyage home from the United States. He accompanied them by a note, apologising for the high price he had to pay, and further saying: "The chicken breeders of Dorking have adopted a sort of *principle*, that they will send away no birds *alive*, except capons, as they desire to retain them as much as possible amongst themselves, in which, by caponizing, they carry on quite a profitable trade, and they can only be had by particular favor. They have very much *improved* them of late years. The old *white* sort is altogether bred out, and the speckled and grey varieties are now all the rage. They are also larger and better formed than they formerly were, and altogether are perhaps the best barn-door fowls in existence, at least these people so esteem them."

To the above we will add, that there are plenty of Dorkings for sale in the London market, of an inferior and cross breed, some of which have been recently imported to supply the American demand. Every *five-toed* chicken is also picked up now in this vicinity and sold for a Dorking, though it may be the most common dunghill that walks. Perhaps one out of seven to ten of the pure breed have only *four* toes, so that to show *five* toes is by no means an evidence of *purity of blood*. We hope this observation will be remembered to prevent imposition.

It is difficult to describe the Dorking fowl, or, indeed, any animal, so exact as to prevent imposition, although a good one will be recognized at once by those familiar with the breed. The prominent points are a fine head with brilliant eyes, and single or double combs, in both sexes; a graceful neck, rather short than long; wide, deep, projecting breast; great length of body, which is round rather than flat or square; and fine short legs, when we consider their large size. The port is usually majestic, and a pleasing, quiet air of good breeding pervades their general appearance. The colors are various, from a yellowish white to a jet black. Those, however, speckled with dark and yellow brown and white, or streaked with silver grey, are most esteemed. Cocks with dark speckled breasts and reddish burnished wings are most to our taste, though the silver grey are frequently preferred by others. They are thickly feathered, hardy, good layers, steady setters, and the best of nurses. They are very gentle birds, fond of being petted, and though far from cowardly, are not at all pugnacious. Their meat is excellent, being lean and tender. They are preferred in England to all other breeds for capons. Well fatted, they usually weigh from 7 to 10 lbs., and often go as high as 12 lbs., or more. We speak of capons only as attaining these great weights.

There is one peculiarity with the *true* Dorking chicken which we have not observed in other breeds, namely: at about six weeks to three months old, they fully develope the shape and style of the grown bird, being then remarkably heavy and compact in the body, and are thus early fit for the table; and with good feed they get very fat like a young China pig. They then, for the next month or two, stretch out in length of leg and body generally, and do not get into compact shape again till nearly grown, when they develope their deep, full breasts, and long, broad, round bodies, in that superior degree, for which they are deemed so valuable by all gourmands who are so partial to their flesh.

Just as we had written the above, we received the following letter from Capt. Morgan:

St. Katherine's Dock, London, April 14, 1845.

My Dear Sir,—Your letter requesting me to get some more Dorking fowls I have received, and assure you that it is not so easy as you may imagine; for you will recollect how difficult this is, unless they are spoken for some time in advance, and bred expressly for you, and they ought to be one year old to make the voyage. I shall write to Mr. Courtney again, who lives near Dorking, and procured those last fall for me, as he is a gentleman who takes great pleasure in the breed. He told me, and I have also ascertained the same facts myself from other quarters, that there is none to be obtained here unless of a *mongrel* breed. The real Dorking fowls that you see in London will not breed, you must therefore wait until I get them for you. They will cost about $4 each, without freight and looking after, which would be at least as much more for a small lot, but this I will do for you with pleasure for old acquaintance sake. Yours truly,

E. E. Morgan.

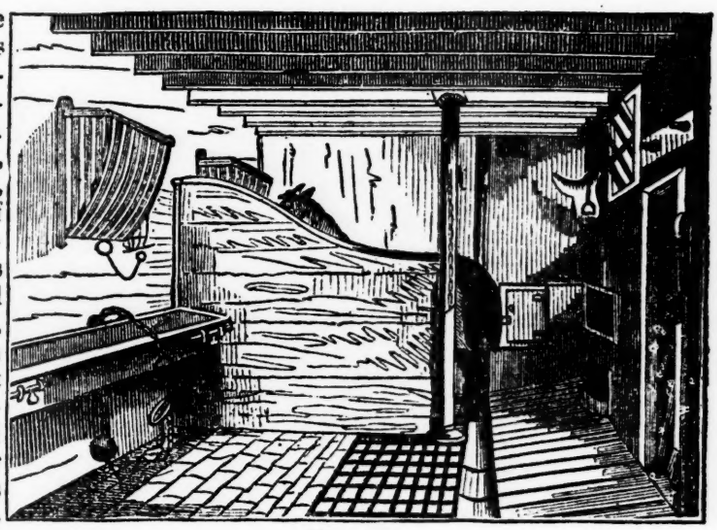
Soon after the reception of this letter, Capt. Morgan arrived here in his own ship, bringing a noble cock and five superb pullets of the Dorking breed. The pullets laid nearly the whole voyage, a thing unexampled, he says, by any other breed of fowls crossing the Atlantic with him. The pullets weigh 5½ to 7 lbs., the cock, 8¼ lbs. When full-grown, the latter will probably weigh 10 lbs. in ordinary condition.

This may be thought rather a long story about a few chickens; but when we consider that the value of poultry in this country is about $15,000,000, and that most of it is of a poor kind, and miserably prepared for the table, the subject becomes one of considerable consequence to the farmer. Superannuated old men, and women, and children, can always take care of the poultry yard; and several of our correspondents in the Boy's Department have shown that with a good breed and proper care it is profitable raising it.

To conclude, neither Capt. Morgan of the Victoria, nor Mr. L. F. Allen, of Black Rock, wish to be troubled with applications for Dorking fowls. What they keep is entirely for their own private use. Dr. Field, of this city, and the Messrs. Carpenters, of Poughkeepsie, have been furnished with some of our own and Capt. Morgan's first importation to breed from, and now have a few young ones for sale. The price is $5 per pair, caged and delivered on board a vessel either at Poughkeepsie or this city.

STABLES. No. 2.

Our cut of this month represents a stable for two horses, and exhibits the principles on which they should be formed. The arrangement can be enlarged, and the necessary stalls added for any number of horses. Where, from the nature of the building, there cannot be a hay-loft over the stalls, this plan is as nearly perfect as can be. If there be a hay-loft over them, the hay-racks exhibited in the plan of Mr. Pell's stables at page 185 of this volume should be added. The eye, in looking over the cut, will at once see all the peculiarities. In the manger are doors to open and let out the hay seed and refuse which may collect; over the manger is a ring in the wall through which the chain of the halter passes, having a ball at the end. This allows the horse to have more or less halter stale as needed, and he cannot be cast.



Fig, 55.

Underneath the manger there is room enough to stow all the *clean* litter—and there should be no *foul* or *wet* put there to ferment, and by its rising gases blind the horses. The floors are grated, to allow the urine to pass down to the gutter in the rear, and yet are level. They never should have the slightest inclination, as those which incline forward make the knees shaky and the ancles groggy, and those which incline backwards strain the cords. This levelness is imperatively necessary to allow perfect rest, and the stall that is without it is a nuisance. In the rear is a door going to the carriage room, or may serve as the entrance to the building itself; there is a window above and beyond the door, bringing the light into the stalls and on to the backs of the horses (see page 173); above the door and on each side of the window are pegs to hang saddles, &c.; at the far end is a closet; and in the corner is a fire flue and boiler, to cook food and heat water. The stalls are sufficiently long to prevent the horses kicking each other, and high enough to hinder their biting or *playing* with each other, and yet not too high to stop a free circulation of air; above it is ventilated, as shown in our cut of last month (page 173), and it is roomy in all its parts. Our cut shows less width in the gangway behind the horses than there should be. It ought to be as wide as twelve feet if that be possible, and not less than six at any rate. This leaves plenty of room to take one horse out behind the others, and entirely clear of their kicking him; it also makes the stables more airy and healthy. Those about to erect or alter stables, would do well to adopt this plan, with the hay-racks, feeder, and rollers of Mr. Pell's stable. The rack here is much too high.

PREPARATION FOR THE HARD-WORKING SEASON.

In our last number we gave an article on food for the hard-working season, and in this we propose making a few simple observations on the best method of preparing for the arduous labors of the harvest.

There is not a greater error, nor one more commonly entertained among the rural population, than this: that a person or animal which has lain still for some time, or been at light work till it has become fat, is thus made strong, and thoroughly prepared by its rest and gross accumulation of flesh for the hardest sort of work. To do a hard week's or month's work without injury, a man or domestic animal must certainly be well fed and in good flesh, or more properly, *condition*; but to have the bones well covered with *hard* muscle instead of *soft, juicy* flesh, are two very different things. The strength of man or an animal of any kind lies principally in the *muscles* (hard lean flesh); how important then that they should be in proper condition! The first requisite for this is proper food, as given in our last; the second, regular exercise. No better preparation can be had for the toils of harvesting than the farmer usually gets in the forepart of the season in plowing, planting, and hoeing. It must be recollected, however, that the *action* requisite to perform these duties is entirely different from that required for mowing, pitching, reaping, and cradling. To perform these operations a *new set* of *muscles* (hard lean flesh) are brought into action, and the great error in the beginning of harvest is, to mow or cradle too much the first day. Active, ambitious young men will very frequently commence harvesting by mowing or cradling nearly the whole of the first day; the result is, that they so thoroughly fatigue and strain the muscles which had been lying idle (and consequently got fat and lusty) during the forepart of the season, that they will be so stiff and sore the next morning that they can hardly move, and it takes a week perhaps to get over this feeling, and not unfrequently lasting injury is done to their whole system by this single day's work!

The true way is to inure oneself gradually to work,

and commence by mowing or cradling, or doing any other severe work, a single hour in the afternoon, and two hours the next morning. Increase an hour each day, and at the end of a week one may mow all day long, without being particularly fatigued, and never injured. Although we utterly detest racing, trotting, and foot matches as at present conducted, or anything which borders on gambling, or is attended with cruelty to animals; yet the hard-working man would do well to learn the principles, or physiological reasons of training men and animals to do the wondrous feats they frequently perform without the slightest injury to themselves. Indeed, at the risk of being laughed at for the expression, we will say, that to be able to work hard and easily during harvest-time, one should go into *training*, and be put in *condition*, nearly the same as if preparing for a great foot match. Only think of a man running twenty miles in two hours with ease as was recently done in England. It was condition produced by training which enabled him to do this. The ancient Greeks and Romans *trained*, that is, got themselves into condition for their sports, war, and the chase; and the North American Indians, though ignorant of the physiological reasons for it, taught by experience of its great advantage, did the same. If, then, it be so advantageous in an idle, foolish, or grossly wicked cause to prepare to acquit ourselves with distinction, how much more imperative with the husbandman on whose labors depend the very existence of mankind, to do the same? But this is delicate ground, and, to our knowledge, untrodden; we therefore forbear saying more at present, only wishing that we could persuade our farmers to study animal physiology. It would enable them to improve the breed of man as well as domestic animals; save them many a disease; add to their longevity and happiness; and qualify them to do more work and with greater ease to themselves; and if we must incite by a selfish consideration, they would thereby *make more money*.

There is an art in doing work which few ever give themselves the trouble to study. Mr. John R. Pitkin, of Woodville, L. I., in the N. Y. Farmer and Mechanic, thus admirably describes that of mowing, the practice of which enabled him to easily beat the strongest and most active competitors.

"1st. The scythe should hang naturally and easily, and, as I have said before, it must be kept in first rate order.

"2d. As you approach the standing grass, let the heel of the scythe move to the very point of commencement, and let it stop the instant it has done its work. Thus there is nothing lost by a backward or forward swing. If the grass stands up so as to admit of moving on, measure the utmost capacity forward of your scythe, take a quick easy gait, moving your right foot well up towards the standing grass, and your body with it, though leaning back, by bending the knees a little forward, so as to bring your whole weight to bear upon the scythe, without twisting the body from right to left (as many do), thus giving ease to each clip, and ability to repeat in an advanced position, without fatigue.

"NOTE.—If you swing 6 inches too far back, and 6 inches too far in pointing out, it makes 24 inches *loss!* Then apply the same strength to a scientific forward motion, and you will find it difficult for ordinary mowers to keep up."

NEW YORK FARMERS' CLUB.

THIS excellent club continues its regular meetings at the American Institute, twice a month. At the two last, various subjects were discussed.

Peach Trees.—Among the means that appeared in certain situations to have been successfully used to prevent the destruction of peach trees, were lime, coal ashes, blacksmith's cinders, put about the trunks of trees, soot and hot water at the roots, when the earth is dug away—others had planted tansy round them, or twisted leaves of tobacco and fastened them around the bodies of the trees. In particular situations, by these means, trees continued to flourish and bear for a long course of years. Facts were stated, showing that, in other places, some of the same means were applied and utterly failed. Mr. Travers stated that coal ashes had failed altogether. The efficacy of tobacco, however, was not contradicted by any one. Mr. Hopkins, whose letter was read at the last meeting, commending this article, has addressed another to the Club, enclosing a letter from Mr. Frazer, showing that a strong decoction of tobacco applied to the roots, after the ground had been dug away, not only destroyed the worms, but proved to be a powerful fertilizer. Mr. Pike, of New Jersey, said: A sharp penknife or wire, is the best remedy I have discovered for the peach disease. The destroying grub insinuates himself under the bark of the tree. No ordinary application can reach him. Tobacco juice alone will not do. My penknife has cut out thousands of them. After I have cut them out, I apply to the bottom of the tree a compost of lime, ashes, and cow dung; I add then tobacco. My diseased trees, treated in that way, have partly recovered their health. I have set out fifty thousand trees. For my part, I am convinced that this enemy insect is bred under the bark. I have taken out the young ones, that must have been hatched there. Guano has been mentioned as a vermifuge—but how can it get at the grub? Pulverised glass might answer, perhaps, for its particles are sharp. Oil is a good application—I have tried soft soap. Look at John J. Boyd's peach trees on Staten Island; he gives them whale oil, and their health is excellent. A member stated he had witnessed the good effects of the application of hard soap to peach trees. The soap was applied in April, June, and late in the fall. An orchard treated in this manner four years, was now very healthy, not a single tree had died during that period. Dr. Underhill said: Either take the worm out of the tree first, and then apply preventives of their renewed attacks, or first apply preventives; I have examined them well. The hole made by the worm in the bark is covered by the exuding gum, so that then nothing can enter the hole to destroy him. He seals up his hole in that way. It is a small white worm with a red head. I have watched it in all its stages. In two years it spins its cocoon, fastening it to the bark near its hole. I have taken the insects out of their cocoons. But there is something more in this matter of diseased peach trees. I think that the forced growth given to young trees by our nurserymen, causes their debility and premature decay. They are forced in rich soils; they grow five or six feet in a single year; their sap is abundant; frost hurts them on that account, in hard freezing. This forcing is carried on to such an extent, that you almost make an annual of the tree—it becomes too tender—it is the

prey of the insect on that account, and I do hope that our horticulturists will alter their method, and let us have a more moderate and natural growth of our nursery peach trees.

Farm Wagons—The best mode of constructing farm-wagons and carts, and harnessing for easy draft was next discussed. To widen the tires for paved or Macadamized streets, was recommended. Shepherd Knapp, Esq., presented $50 to the American Institute, to be given as a premium for the best farm-wagon at the next October fair.

Bone-dust, diluted with sulphuric acid, was recommended as a manure.

Guano on Corn.—A communication was read from Mr. Wm. B. Oddie, on the use of guano as a steep for seed corn. He soaked his seed for two days in a mixture of one pint of guano to 4 gallons of blood-warm water. It has given his corn a rapid growth, and proved the best scarecrow he had ever employed—for after the crows had one taste they never troubled the corn again.

Coal Gas Tar.—A communication was read from Mr. Roswell L. Colt, of New Jersey, relating to the application of coal gas tar to fruit trees, for the purpose of destroying worms and noxious insects.

Corn.—Several members spoke upon the subject. The general opinion expressed was, that the ground should be well manured and tilled by plowing and harrowing, and that the subsequent culture should be performed with the cultivator and hoe, so as to leave the soil and manure undisturbed, and that in harvesting corn it was decidedly best to cut the corn up at the roots instead of topping it as is sometimes practised. One gentleman disapproved of the practice of killing crows, considering them a useful bird to destroy insects and vermin on the farm. He could always keep them from his fields by extending strings across them. A member stated that a crop of corn averaging 90 bushels to the acre, was produced, where the only working of the crop was performed with the cultivator, which was passed through the field three times. The hoe was not used. It was stated that Mr. Brown, of New Hampshire, has raised 135 bushels of shelled corn to the acre. His corn is a variety of his own raising. The secretary, on motion, was requested to obtain from Mr. Brown his mode of cultivating corn.

Grafting.—Specimens of root grafting were exhibited—not only of grape vines, but also pears, &c. Subject for the next meeting—The best mode of cultivating roots for soiling purposes.

AMERICAN AGRICULTURAL ASSOCIATION.

The monthly meeting of this Association was held at the Historial Society's Rooms, on Wednesday, 4th June, Hon. Luther Bradish, President, in the chair. After the minutes of the last meeting were read, Wm. A. Seeley, Esq., proceeded to read extracts from the London Chemist, upon the subject of electricity as applied to the cultivation of grain, and then make some remarks upon the subject, which were highly interesting and important.

Communications were received from Thomas Spalding, Esq., of Georgia, L. Pratt, and J. S. Wadsworth, accepting their appointment as Counsellors of the Association. Mr. Spalding forwarded some seeds and several specimens of rare plants.

A communication was received from Mr. Albert Carl, Secretary of the Queens Co. Ag. Society, desiring to open a correspondence with the Association. A motion was made directing the Corresponding Secretary to open a correspondence with Mr. Carl.

Mr. Russel was appointed one of the committee on galvanic and electrical experiments in the place of Mr. Clark, resigned.

A report from the committee on meteorology was read by Mr. Green. Also, a memorial to the Regents of the University upon the same subject.

Mr. Jones read a communication upon the subject of rye top-dressed with guano. He presented two specimens to the Association; one had been raised where soap-stone or impure serpentine had been deposited, for the purpose of making a road, and the other some distance from it. Where the rye grew near the soap-stone, it was much more perfectly developed, which Mr. J. attributed to the fertilizing qualities of the disintegrated soap-stone.

Mr. Clark made a verbal communication upon preserving timber. An interesting discussion arose upon the subject, in which Mr. Clark, Dr. Gardner, Messrs. Seeley, Jones, and Swain, took part.

A letter was received from J. B. Purroy, Esq., Consul of Venezuela, desiring an interchange of communications with the Instituto Tovar of Caraccas. On motion, the Cor. Sec. was directed to open a correspondence. Mr. A. Stevens presented a specimen of wool from the back of a Southdown ram, one of six recently imported by Mr. Easton, of Mt. Morris, Livingston Co., which was of superior quality, on account of its length of staple and its softness. He also described some Cheviot sheep, China pigs, and shepherd dogs, recently imported by Mr. Carmichael, of Sing Sing, for his farm in Wisconsin.

Meeting adjourned to 1st Wednesday in July.

FARM OF DR. POOL.

Last month we had a delightful ramble among the farmers in New Jersey, passing up a part of the valley of the Hackensack—thence across to New Brunswick—thence up the Raritan to its forks, and round the South Branch to the North, and thence home. We were pleased and instructed with much that we saw, and quite the reverse with some other matters. We shall give details hereafter, confining our notes in this number to the farm of Dr. Pool.

This farm lies within a mile and a half of the flourishing town of New Brunswick, and consists of over 200 acres, part of which is broad alluvial meadows on the Raritan, of great fertility, and the other part gradually rising upland of a fair quality, technically termed *red shale*. It is a *stock* farm, and as much of it, consequently, kept in grass as possible. Everything raised here, with the exception of the wheat crop, it is intended shall be consumed on the land. This gives large quantities of manure to enrich the uplands. The meadows are more or less overflowed every spring, and a rich alluvial sediment is left, which answers as a first rate top-dressing; and notwithstanding the grass is annually carried off and consumed elsewhere, they keep up their fertility, yielding about two tons of choice hay per acre, besides a thick coat of aftermath. We are surprised that any one should think of breaking up such lands for root and grain crops, more especially at their present prices; for after being well set in grass, this gives the most profitable return on the average of

years. If properly treated they will be constantly improving, as the meadows are similarly situated in England, the farmers calculating upon a whole century to bring them to perfection in that country. We know of no branch of husbandry in which we are so deficient as in that of the *cultivation* of meadow and pasture land. By *cultivation* of these we do not mean plowing, planting, and hoeing—quite the reverse; but as this subject would demand an essay of itself, we shall leave it to be treated separately hereafter.

Manures.—Lime is found to be the great renovator on *red shale* in New Jersey, as well as Pennsylvania, Maryland, and Virginia. It not only supplies this deficiency in the elements of the soil; but warms, lightens, and makes it looser, more pliable, and easier of cultivation—it being naturally somewhat cold and adhesive. However much manure the people in this district may make on their own farms, lime is considered indispensable, and is now almost universally resorted to. The canal connecting the Raritan and Delaware affords great facilities for obtaining lime. It costs 12½ cents per bushel unslaked, and 5 cents slaked, delivered on the banks of the canal. From 50 to 150 bushels are applied to the acre. It is found to act most beneficially kept as near the surface as possible; it is therefore put on after plowing, and then harrowed in with oats or barley, and the land seeded down to grass: it is also spread broadcast upon pastures and meadows. Lime is easily kept in large heaps in the open air by throwing a little water on the top, which slakes sufficiently to make a fine smooth crust over the whole. This soon dries hard, and forms a roof impervious to the rain. When the lime is to be used, the heap is broken into near its base, and whatever is wanted taken out, and another crust formed over this broken part in the same way as above. Plaster is much used, and is found beneficial on all crops; the effect, however, is most apparent on clover. It is applied at the rate of 1½ to 2 bushels per acre. It costs here 25 cents per bushel—26 bushels make a ton. Leached and unleached ashes are used to a considerable extent, costing from 10 to 13 cents per bushel. Guano has been tried some this season, and where rain has fallen immediately after the application, its benefits are already very apparent, the crops looking much greener, and are from 35 to 50 per cent. in advance of those treated with various other manures. But an increase of *grain*, *roots*, and *fruit*, and not *straw*, *stalks*, and *branches*, must be the grand test of this powerful and highly condensed manure, and it is to this point particularly we most earnestly call the attention of our farmers in the use of guano.

Rotation.—Dr. Pool applies a good coating of stable manure broadcast upon grass land; it is then broken up and planted with corn. A compost of one part plaster, mixed with two parts of unleached ashes, is then applied, at the rate of a table spoonful on each hill of corn as fast as it is dropped, and before the grain is covered. A table spoonful of plaster is added to each hill any time after the corn comes up, till it has attained a foot in height. This compost and plaster is invariably applied, let the corn be ever so highly manured otherwise, and the difference in favor of the crop thus treated, and one without the compost and plaster, has been found very apparent. These give the corn a quick start, and keep it moving till the barn-yard manure has time to decompose and form food to perfect the after growth. The crops on all cold sluggish lands should have a dose of something warm and immediately fertilizing, to give them a good start. Guano and poudrette have been found highly useful for this purpose; but when applied without other manures as well as ashes and plaster, a second dose just before the crops fruit is indispensable, they part with their fertilizing properties so rapidly. Oats or barley follow the next spring, as the second crop in the course. The latter is preferred, as the yield of barley is generally as great as the oats, and it is ordinarily worth in this market nearly twice as much per bushel. A top-dressing of lime is now added, as detailed above, and the land is seeded down with timothy and clover, or clover alone. If the former, it is suffered to remain in grass till it runs out. But we contend there need be no such thing as *running out*, if a top-dressing of vegetable compost or stable manure be added in the fall or spring, and it be not depastured too closely. If wheat is to follow the oats and barley, clover is sown. The first growth is mown the following year, and the second after growing up to seed is turned under for wheat, and thus the land seeds itself with clover. Some of the Jersey farmers, we were informed, had followed the course of an alternate clover and wheat cropping for years, with good effect, giving nothing back to the land save turning under the second growth of clover, and top-dressing every second year with lime at the rate of 50 bushels per acre. This is a severe system, and it seems incredible to us that any land can improve under it.

Fruit.—Large quantities of apples are raised here, though peaches are at present the most profitable of the fruit crops. To our surprise we found them doing remarkably well on the red shale, when elevated 50 to 100 feet above the river. We had before supposed that this sort of land was too heavy and cold for the successful growth of peaches. From 120 to 150 trees may be set out on an acre. They yield one basket (3 pecks) per tree, on an average, worth 50 cents to $1. Some years the fruit is worth $5 per tree. The trees come into pretty full bearing at six years from planting the pit; the object being not to force them in their growth, as the frost is then much more liable to kill them. They are budded the second year after planting. Strawberries and peaches are getting to be great crops in Jersey, and many are making snug little fortunes in their cultivation. Success, we say, to them, for they are among the most healthy and delicious of fruits.

Stock.—Dr. Pool was one of the first to introduce improved stock into his vicinity, and in this respect has set a highly laudable example, and been of no little benefit to that section of the country. There is scarce a prime milker now found in New Brunswick or its neighborhood, the blood of which cannot be traced to a cross with one of his Durham bulls. Maria is a most superb red and white cow, and was imported direct from England by Dr. P. In addition to her fine large form, she is a superior milker; giving in her best season from 26 to 28 quarts per day, wine measure. Fanny is quite a pretty cow, also red and white, and is a deep milker, giving 25 to 27 quarts per day. Bernard is a fine bull, with a good quarter and loin, and handles well. He was imported in Maria's belly. Carter is quite a clever fel-

low, after the Durham standard. He is out of Maria by Mr. Gibbon's Majestic. In addition to these, Dr. P. showed us some well-bred young things, and more or less animals with a Short-Horn cross. This, with the pure Alderney, gives the richest milk, though not so large a quantity as the Durhams alone. The milk from one pure Alderney cow yielded at the rate of a quart of the richest cream to 13 quarts of milk. Dr. P. recommends this breed for their very rich milk only; for when they are done with for this, it costs more to fat them than they are worth; whereas, a Durham cow will immediately clothe herself with good flesh, and prove as profitable to feed for the butcher, as she was, kept for the dairy. This is the great and superior merit of well-bred Durhams over any other breed, that they are equal to any at the pail, and when dried off, nothing excels them for the shambles; thus uniting the rare qualities of the butcher's and dairyman's beast. We were shown here quite a curiosity; a half-bred bull of the Chinese, or more properly speaking, probably of the Brahmin breed. He shows the buffalo hump over the shoulders in a marked degree. We have occasionally seen such as well as the pure Brahmins in England.

The horses are fine. Among them we noticed Medora, out of Lottery, by American Eclipse; and Indiana, out of Votress, by imported Expedition. Those familiar with the stud-book will see at once that she can trace back a rich and rare pedigree. We found Raritan standing to mares in Somerville. He is out of Indiana by Monmouth Eclipse, and is a fine horse, standing plump 15¼ hands high if not more. He possesses substance enough for the road, and will doubtless greatly improve the stock of that part of New Jersey.

The jacks and jennies are superb, and we do not believe there is anything in the country comparable to Don Juan. We certainly did not see his equal within a long degree when in Kentucky. He is an imported jack of the pure Spanish breed, stands 15 hands high, possesses great substance, and withal, is remarkably fine in his limbs, and quite superior in all his points. Till we saw Don Juan we did not know that so good an animal of his kind existed in the United States. His stock of mules is equal to himself; many of them out of good roomy mares attaining 15¼ to 16 hands, raised in the ordinary farm way, and without a particle of grain or extra keep. Mules are much used in this district. They begin at 2½ years old, at 3 are put to full work, last twice as long as horses, are kept at much less expense, and are not at all subject to their diseases. We found them used on the canal for towing boats, to the total exclusion of horses; the proprietors of the lines finding them cheaper and more enduring. Mules raised in New Jersey, and indeed everywhere at the North, are superior to the corn fed animals of the South and West, in strength and endurance, as has been often proved by working them side by side.

The pigs here are Berkshire. Sheep we saw none, but think the Southdowns and their crosses would pay well as mutton to feed off the clover, preparatory to a wheat crop. We should much prefer this system to turning the clover under, as it is the best possible preparation for a wheat crop.

Dr. Pool feels a little proud of his success at the different agricultural shows with his stock. We noticed a baker's dozen of silver cups gracing the shelves of his table buffet, besides a considerable number of medals and diplomas awarded him for prizes on the same. Such a feeling is highly to be commended, and we wish more of our farmers were ambitious of obtaining such prizes.

Buildings.—The house is of massive stone, a fine old Revolutionary relic of two stories, and embowered with trees and flowering shrubbery. A well stocked formal old garden, with right angled paths edged with box, joins in the rear. Dr. P. speaks of giving it a more modern shape; but we hope he will not, as it is now in keeping with the style of the house. We begged him not to alter its form, though he is welcome to make the land as rich as he pleases, and add as many kinds of vegetables, fruits, and flowers, as it will hold. The farm buildings are commodious and extensive, and will have additions the coming year.

ROUP IN FOWLS.—This disease is fatal for want of knowledge of the proper manner of cure. It is said to be *contagious*, but it is *epidemic*. It will arise among fowls without connection with others. It is mere *influenza*, and is to be cured by warmth. The disease arises from changes of weather from warm to cold and damp. The symptoms are, 1st, gaping; 2d, difficult breathing and noise in the throat; 3d, swollen eyes; and lastly, catarrhal discharge from the nose. Wash the nostrils with warm water and castile soap, and keep the discharged matter all clear from the nose; and let the eyes and head be bathed with warm water. A lotion of hartshorn, and spirits of wine (alcohol), in equal quantities, diluted with water, will be good to wash the head with, as it will diminish fever by increasing perspiration. Feed, whatever the fowl will eat of light food, and it will soon recover.

TURNIPS.—Since we wrote the leading article, page 201 of this number, a favorable change has taken place in the weather, and copious rains have fallen. Nevertheless, the crop of hay, generally, south of 41°, will be very short, the rain coming too late to help it. As extremes usually follow each other, the remainder of the summer may be wet, and if so, it will be highly favorable to the growth of the improved and common field turnips. We would therefore again particularly urge growing them extensively this season, as it is not too late for a good crop. We have first-rate drills for sowing them and other seeds. Our readers will find various articles on the culture of the turnip, in our second volume, one particularly good at page 75.

HOW TO MANAGE A STUD HORSE.—I know a stud horse in my neighborhood, which is led out of the stable by the bit, the rein passing from the right side under the jaw through the ring of the left side. The horse takes his groom at ease where he pleases, and as fast as he pleases, till he reaches the mare to be covered. I know another stud horse which was equally unmanageable till the following mode was adopted. The rein passes from the ring of the right side of the bit, up the right side of the head, and over it behind the ears, then down the left side through the ring of the left side of the bit, which gives a purchase upon the mouth that cannot be resisted; the groom thus manages him with the greatest ease. Try it. HORSEMAN.

Agriculture in Scotland.—No. 9.

SINCE my last, I have enjoyed a most delightful excursion into the county of Forfar, in company with Prof. Johnston. During the week of our absence, the weather was unusually settled for this climate, almost every day being mild, bright, and springlike, as heart could wish.

Dundee was our first stopping place, and on our way thither through Fife, we were much interested by the activity which prevailed among the agricultural population. Almost every farmer was taking advantage of the fine weather to sow his oats and barley, and in many instances the more forward had begun their potato planting. But there were many fields where the dark wet spots showed a want of drainage, the occupiers of which were obliged to wait for yet more sun, while their more enterprising and *wiser* neighbors, by the aid of drains, were improving to the utmost the precious hours of an unusual seed time.

At Dundee, the day after our arrival, Prof. Johnston delivered a lecture on the "Cultivation of the Soil" to a large and deeply interested audience. It was market day, and I had afterwards the pleasure of going among the intelligent farmers of the surrounding districts, and hearing their expressions of approbation, and acknowledgments of instruction

We were the guests of Sir John Ogilvy, Bart., whose seat (Baldovan House) is about three miles from the city. The situation is beautiful, and though so near Dundee, quite secluded. The largest rookery that I have yet seen surrounds the house; some of the nests are built within a few feet of the windows, and the cawing is incessant. There are probably 8,000 to 10,000 of them, and the neighboring farmers complain bitterly of their depredations. I have always been a defender of birds, and especially admire rookeries as connected with the antiquities so fascinating to us from the new world; but I was somewhat staggered when I was shown fields of turnips, where at least the half were injured by the rooks, who first learned to eat them during a severe storm, some years since, and have never lost their acquired taste. They are exceedingly destructive to potatoes also, and where there are such large rookeries as those of Baldovan, it is necessary to keep boys constantly in the field to watch them. Their advocates contend that the immense quantities of grubs, worms, and insects destroyed by them, more than counterbalances these evils. I am inclined to believe this true where their numbers are not too large, but am very doubtful in cases like the present. Sir John Ogilvy is so far convinced of the contrary, that he has this year seriously commenced thinning his rookery, by destroying the eggs and the young.

Sir John has done great good to the farmers of his neighborhood, by his enterprising but judicious treatment of one of his farms, which he took into his own hands four or five years ago, when the lease expired. The soil was wet, mossy, intractable, and naturally poor. By draining, subsoil plowing, and skilful manuring, he has more than doubled its value, and his crops bring the very highest prices. His system, and that of others near Dundee, is a rather singular one. Very little stock is kept, and everything is sold off. The turnips, potatoes, &c., are planted in such a way as to be easily divisible into small lots, which are sold separately by auction or roup, as it is here called. The seller is under obligation to deliver the crop whenever the buyer wishes. If it is grain, he thrashes, but is not often obliged to harvest it. Everything is thus carried off the land; but large returns are made in the shape of manure, from the cow-feeders, &c., in the city.

The rotation on these farms is an unusual one, and I will give Sir John Ogilvy's. 1, grass; 2, oats; 3, turnips, fully manured—about 25 tons per acre; 4, wheat, half manured—about 10 tons per acre; 5, potatoes, fully manured; 6, barley, with grass seeds, half manured. This may serve as an example of most farmers in that immediate neighborhood. Sometimes turnips are grown the fifth year, and potatoes the third. Wheat shifts in the same way with barley. Occasionally two crops of oats are taken, but in that case the last is manured. It will be observed that in this rotation every crop, excepting grass and oats, is manured. They say that their land will not do without it. Guano has now come into general use, and is found to do best at the rate of 3 cwt. per acre, with a half dunging.

As every crop, excepting wheat, and sometimes barley, is at once sold off, this method of farming brings quick returns, and does not require so large a capital as other ways; but the interest of the profession is in a great measure destroyed; they lose the pleasure to be derived from the rearing of stock and the consumption of at least a portion of their crops upon their own premises. As one of them observed, it becomes a kind of retail shopkeeping, the object being simply to raise as large a crop as possible, and sell it out in little patches to the highest bidder. After the sale comes the worst part of all, the liability of interruption in the most pressing work, by a demand from some one of these buyers to carry his turnips, potatoes, grain, or straw, into Dundee. In my next I will give some further observations on my journey in this section of Scotland. JOHN T. NORTON.

Edinburgh, April 30, 1845.

WOOL RAISING IN THE UNITED STATES

THE suggestions of your correspondent R., as to "the policy of American Farmers" in associating together by their representatives in a national capacity, are well worthy the consideration of the class to whom they are addressed. We need to be officially advised from time to time, by some intelligent board of agriculturists, who have the means of forming a correct opinion from authentic sources, of the ever varying wants of nations, and their present and probable future productions, by which alone, American agriculture can be shaped in time to meet the most profitable return through the agency of our commerce. In the absence of all such national agency, we must, individually, pick up such isolated facts as *happen* to present themselves, from which important inferences may be drawn for the guidance of the American farmer. Such an one is afforded in a late number of the London Farmers' Magazine, in which the progress of the colonial wool trade with the mother country of Great Britain, is given at some length. The crowded columns of the Agriculturist will admit only the briefest synopsis of this history which I subjoin.

In commencing the article, the writer says: "It is scarcely a quarter of a century when the announce-

ment of a public sale of wools imported from a British colony was a subject of derision on the part of not a few of the German and Spanish merchants connected with the trade, in the wools of the two countries we have named, and a topic judged as chimerical by the flock-masters and manufacturers in the United Kingdom." For a long time the colonial wools were imported in a bad condition, being put up without washing or assorting, and frequently filled with burrs and other objectionable matters; and the wool from Sydney, in addition to its other bad qualities, was very deficient in strength of staple, which was charged to the great scarcity of water prevalent in New South Wales. As is the case with all new enterprises, the progress was limited, and subject to much fluctuation and many losses. Prices were for some time very low, owing to a want of character and reputation in the article, and the business in first hands was far from profitable; yet Anglo-Saxon perseverance, intelligence, and energy, steadily and rapidly overcame all obstacles, and the annual public sales now held in London, are looked to with the same respect as the sales of Chinese teas and American cotton. The details given in the article from which we quote are not generally very succinct or definite, but enough is given to show the general results which we wish to exhibit.

Progress of the Wool Trade from Australia.—Previous to 1825, a sale of 400 bales was considered a very large sale. (We may here mention, the *bale* is a very indefinite quantity, varying from something under 200 lbs., to over 260 lbs.) In 1836, however, colonial wools began to be quite popular, and there were offered, at one sale, 8,746 bales of Australian and Tasmanian wool, and the whole quantity brought into England for that year was 22,783 bales. The prices for some of the best combing qualities, were 2s. 6d. to 3s. 3½d., or from 60 to 80 cents. The same year there were imported from Germany 90,450 bales, and from Spain 23,463 bales.

In 1839 there were imported into London alone from Australia 20,495 bales, of the aggregate weight of 5,414,300 lbs. The total importation into the kingdom is not given; but that for London in 1836 (the only standard of comparison afforded us) was 10,227 bales, being nearly one-half the entire importation for that year, thus making with this ratio, an importation in the whole kingdom, of over 45,000 bales for this year, from Australia. The imports of Peruvian wool for 1839, were 20,114 bales, and of Spanish, 11,318 bales.

In 1841 Australian wools were imported into London to the extent of 54,764 bales, weighing 13,145,555 lbs. In 1843 the importation of Australian was 67,160 bales, while of German, there were 9,964 bales, and of Spanish, 2,480 bales. The highest prices paid for 1844 were 2s. 3d., about 53 cents, for "hand washed;" and 2s. 2½d., for good combing cool. The result of the foregoing progression, in one branch only of colonial wool growing, on the German importation, is given above, and the consequences were such as were to have been clearly foreseen, having ended in the bankruptcy of many of the small flock-masters, and the great curtailment of the larger establishments.

Van Dieman's Land.—The first noticed importation from this island is given in 1827, when the total amounted to 192,075 lbs.; in 1829, 925,320 lbs.; in 1831, 1,359,203 lbs.; in 1836, 1,983,786 lbs.; in 1839, 3,212,698 lbs.; in 1843, 3,993,040 lbs. The prices obtained for this wool, correspond very nearly with that of the Australian above-mentioned.

The Cape of Good Hope is styled, *par eminence*, "the *father* colony of the wool trade." The first imports noted, are in 1816, and amount to only 9,623 lbs.; in 1822, 49,028 lbs. The prices at first obtained were from 10d. to 1s., or 20 to 24 cents. In 1837, the imports ran up to 468,011 lbs., and the quality had so much improved, that the best lots readily commanded 1s. 10d. to 2s. per lb. In 1841, the total import was 1,079,910 lbs.; 1843, 1,728,453 lbs.; 1844, nearly 2,000,000 lbs.

Port Phillip, a recent settlement, in the southern part of New Holland, exported no wool comparatively 8 or 10 years ago, but during 1844, sent to England 11,770 bales, some of which sold as high as 2s. 5d. per lb., or 57 cents.

The East India Company's Possessions in 1817, sent only about 1,000 lbs. wool to the English market; in 1821, 18,000 lbs.; when, for a series of years, there was a rapid decline till 1825, when it reached 0 (*nothing*). They subsequently ran up till they reached in 1835, 292,662 lbs.; in 1839, 2,103,546 lbs.; in 1842, 4,195,768 lbs.

South Australia, "a fresh settlement," sent to England in 1840, but 51,590 lbs.; in 1843, 1,387,514 lbs.

New Zealand, just starting in the wool career, furnishes but one authentic importation, that of 1842, when 262 lbs. are reported; yet in 1844, 100 bales were offered at a single sale.

New South Wales affords a fair example of the progress in wool growing. In 1827, the imports were 320,683 lbs.; in 1832, 1,425,657 lbs.; in 1836, 3,008,022 lbs.; in 1840, 7,000,727 lbs.; and in 1844, they were reported to reach 14,000,000. Such is a brief summary of the rapid developments of wool growing, in some of the dependencies of the British crown. Let us see if we cannot derive some useful lesson from a consideration of the foregoing facts.

In each of the settlements above mentioned, there is little that is attractive to the enterprising and intelligent wool growers of Europe, except in the single qualification of money making. Beyond this, there is nothing to compensate for leaving an old and cultivated country, for those so entirely uninviting. In addition to mental and moral privations, there are others of a physical nature, strongly objectionable, one of the most material of which, is the excessive scarcity of water in all the regions mentioned. In the article quoted, there are frequent allusions to the excessive droughts, and to the effects of which a decided inferiority of staple is attributed. The prices of land are quoted at 5s. to 10s. per acre, or $1.25 to $2.50. These prices, it will be observed, range from the minimum, to twice the minimum price of United States Government lands. The purchase of a certain quantity of land there doubtless enables the flock-master to use an illimitable range of unoccupied territory, as the occupant of a few acres of our western prairies can have the undisturbed range of all that belongs to non-residents, or remains unsold. The occupant of New Holland has a somewhat better chance for the permanency of his unbought range than the American farmer; indeed, it is precisely in the inverse ratio of its attractiveness.

The duty on the importation of wool into England

is merely nominal, and her market, therefore, is as open to America as to her own colonies. Her consumption of wool is enormous, and we cannot anticipate its being glutted for years to come. Why, then, have our southern farmers been raising an immense over-production of cotton, by which they have sunk the price to one-third of its value, but a few years since? Or, why do our western agriculturists continue their everlasting round of wheat and corn, pork and beef, when they cannot, by this commonplace farming, procure any adequate return for the capital and labor bestowed? There is in this almost universal practice, a bold, forward push into the regions of stupidity, that would do no discredit to the heroes of the motley coat, or that ancient order distinguished by the insignia of the cap and bells. This system has run many of onr states and their citizens into bankruptcy and repudiation, and what is perhaps a greater *blunder*, into nullification and treason; while all the metaphysical, fine strung, 40 bale theories, so satisfactory to their discoverers and promulgators, have failed entirely in extricating them, but are rapidly carrying them deeper and deeper into the abyss. If our southern and western farmers would go as far out of their way to cosset a sheep as John Randolph did to kick one, they would, ere this, have been out of pecuniary difficulty, both public and private.

In the British colonies, wool raising is almost entirely, as in the operations of the planting states of our Union, a commercial enterprise; and, like the operations of tobacco, cotton, rice, and sugar raising, can, wherever grass land is sufficiently cheap, be advantageously and indefinitely extended by a single proprietor. Proper shelter, abundance of the right kind of feed, with competent shepherds and well-trained dogs, in proportion to the extent of the flock, are all that are requisite to success. As long since as 1837, an English gentleman connected with a concern in New South Wales, informed me, that their establishment numbered over 150,000 sheep. An equal number could, with more profit, be kept by a single proprietor in our own country.

Some will properly enough inquire, whether there is not the same danger of over-production in wool growing, as in the staples above mentioned? The question can only be answered conditionally; that land and labor enough in this country could be turned to this object, to produce a glut in the *world's market;* yet that such would be the result, if a largely increased attention were directed to this pursuit, is far from probable. Numerous reasons might be assigned to fortify this opinion, but it is sufficient to mention two or three.

1. The diversion of any considerable employment and capital from present agricultural pursuits, would inevitably tend to improve those pursuits to a degree, which would withhold any curtailment of them, beyond a wise and salutary limit. This would operate as one important preventive to over-production, and restrain the improvident loading of one end of the balance.

2. Whenever wool reaches a certain minimum price, the pelt, carcass and tallow, are worth more for the shambles, than the animal is for his fleece; and it may be worth the inquiry, whether, on sufficiently cheap and well adapted pastures, sheep may not be a very profitable production for this object alone. It is certain that our western farmers have, for some years, found their advantage in slaughtering many thousands annually for this purpose. It would perhaps not be an extravagant estimate, to put the number thus slaughtered in New York and Ohio alone, at over 100,000 during the past season, and that, too, while wool is comparatively high, and with every prospect of continuing so. 30,000 have been thus disposed of in Buffalo and Cleveland, a single point in each of the above states.

This business has been reduced to a perfect system in the colonies above named. Mr. Lloyd, of a *steam* melting establishment at Port Phillip, says: "We have given the result of tallow that may be depended on, our most anxious study, and have arrived at the following conclusions, which we are certain will be found correct. First, that a sheep of the ordinary Merino breed weighing 55 lbs., is just in nice condition for the shambles, and will produce at the melting establishment, 20 lbs. tallow, and for every pound over 55, four-fifths will be tallow. Second, young sheep, say two-toothed, will not produce as much as four-toothed and upwards, of same weight." The following results were obtained from six flocks of different average weight.

Those averaging	44 lbs.	produced	15½ lbs.	tallow each.
"	47	"	16¾	"
"	48	"	17¼	"
"	52	"	19	"
"	54	"	19½	"
"	65	"	27½	"

The above tallow was worth 28s. per cwt., which brought the average value of the lowest flock to 3s. 2d., or 75 cents each, while the best reached the very handsome price of 6s. 10d., or about $1.60 each, besides the pelt, which is usually worth 35 to 60 cts. in addition. In this country, the hams are extracted and cured like dried beef or venison, and find a ready sale.

3. The growth of wool in the United States will have a tendency to augment our woollen manufactories, one of the most lucrative and reliable sources of wealth which any intelligent nation can secure for itself. This will draw off largely from wool producing to a wool consuming population. We should then have the product of our fields in another form, to constitute another element in our commerce; for our woollen fabrics, like our cotton, *wooden clocks*, &c., &c., will find many a profitable market where the raw material would not pay the cost of freight. We should thus secure the profit on the agricultural production, and probably four or five times as much national profit in addition, on the manufacture; or in the proportion to the labor and capital expended in manufacturing, as compared with the labor and capital of growing the raw material.

Europe has, for two centuries, been drawing the life-blood from us, and nothing but the plethora of an active, well fed, healthy youth, like brother Jonathan, would have sustained himself under the infliction, and kept full veins in his system. They have worked with the long end of the lever, and we, simple souls, have always been content with the short one. In sharing the common plunder, they have invariably said to us, "you may have the owl, and we will take the turkey, or we will take the turkey and you may have the owl." We declared ourselves of age nearly 70 years ago, but have not yet come to years

of discretion. Light is beginning to break in upon us in the East, indeed, it is pretty full daylight with *them;* and it cannot be doubted we shall have ere long, a bright and glorious sunshine over all our Union.

It may be a matter of interest to know the peculiar breeds of sheep raised in the "Colonies." The report before us is evidently made up by a commercial man rather than a breeder, and we are consequently without information on this point, except what is incidentally afforded. There seems to have been almost every variety transplanted thither, from the silken fleeced Saxon, to the Alpaca covered Lincolnshire. Hence we see in the first public sale of 1817, quotations varying from 10d. to 10s. per pound, or from 20 cts. to over $2.30; the latter, however, was considered at the time, a fancy price. There were many Saxon and Merinos, well selected and freely bred; also, many of the long wools of England. Much fault is occasionally found with the "low Lincolnshire," and very high commendation is given to the choice "combing wools." We suspect an advantageous cross has been produced between the fine wool and the long, giving fineness, elasticity, and length, to the staple, and thereby eminently adapting it to the most profitable fabrics, bombazines, mousselin de laines, &c. This is a cross frequently made by Long Island and Hudson river farmers, without reference to the fleece, but solely for the advantage of large and early matured, and consequently profitable lambs, for the New York market. It is from such flocks, some of our shrewd manufacturers selected the long stapled fleeces for which they paid some 28 cts. in '43, and resold them to their brother artisans at the handsome turn of 48 cents per lb.

It were much to be desired, that a breed, combining the last mentioned qualities, could be originated with permanent and reliable points. Lord Western's famous experiment, to harmonize and perpetuate the valuable but opposing qualities of the Merino and Long wools, is said to have proved a failure, as was to have been expected, from the violence of the cross. Another Bakewell may, perhaps, in a great degree, accomplish this desideratum; or a union of the skill of several individuals, may possibly effect, what is in the power of a great genius alone to achieve. As the experiment need be attended with no loss, and may serve to excite in observing minds an interest in the result of various combinations, we trust American breeders may, hereafter, give some attention to this feature of this highly important subject.

R. L. Allen.

Buffalo, Feb. 19, 1845.

HIRED LABORERS.

There is no one thing in which our farmers in the free States are so frequently imposed upon, as in the laborers employed on their farms. I speak now more particularly of those farmers who don't labor with their hired men themselves. The following sketch is a fair sample of many others which have come under the notice of the writer, and yet these would-be farmers wonder why they don't make money by farming as well as others. Mr. B. has purchased a farm capable of keeping 100 head of cattle, 100 sheep, 2 brood mares, 1 pair of team horses, and 2 pair of working oxen, one pair 6 and the other 7 years old. These he calculates to work moderately every fair day until they are 8 years old, when he turns off the oldest yoke, and puts on another yoke at 6 years old, and so keeps on a regular routine, supplying them from steers of his own raising. He stables and grooms them the year round, and their growth does much towards paying for their keep. They are in high condition after having done the spring work. At 8 years old they are then turned to grass during the summer and autumn, then fed with cut hay, or straw, with corn ground in the cob, until the following March, when they are slaughtered, and barrelled for family use, supplying his laborers who have families, &c. His other team is a pair of strong farm horses, slow but sure. These he keeps in good condition, well groomed, and never thinks of letting them stand idle a day, any sooner than he would hire a man to stand idle, except it be stormy weather, in which case he never takes them out, but has them groomed and fed the same as when they are worked. Now from this farm he calculates to get every necessary that a farm will produce in the meridian of New York, for the consumption of the farm, and the supply of his family in the city; and although not on as large a scale as many boast of, it is sufficiently large to employ a good many men, and one principal business is to send milk to the city. But I am wandering from the subject on which I started.

The man at the head is one of all work,—scarcely anything in the farming department that he does not fully understand—industrious and faithful in everything; but not so with all the others put under him. Where the work is regular, he can get along very well; but on a farm like the one in question, there must necessarily be much that is complicated, and often a man has to be called from one thing to another, in which case an opportunity is given, if disposed, to play "old soldier,"—as it is sometimes called—and he will take advantage, and use every kind of duplicity to get rid of his duty, not only wasting his own time, but by trifling immoral conversation take away the attention of others from their respective duties; his influence being deleterious wherever it is exerted, and all such creatures have more or less influence among every gang of hands. The owner of the farm having hired this man in the city, from his own good recommendation of himself, the overseer feels a delicacy in preferring complaints against him, and he is suffered to go on for weeks, and perhaps months, doing more injury than a sheep diseased with scab or rot turned in with a flock of healthy ones. It is impossible to know the ultimate loss resulting from employing men who have no fixed principles of right by which they are governed in the discharge of their respective duties, and I have often thought that a farmer did a public injury, as well as himself injustice, by employing and giving countenance to such as I have described.

More than thirty years ago, I was spending an evening with Isaac Hicks, perhaps one of the cleverest merchants in the English acceptation of the term, that ever did business in the city of New York. He made a fortune in a few years, and then retired, and spent the remainder of his life as a farmer on Long Island. He was a man of great conversational powers, and, in all my intercourse with him, I never heard him utter a sentence but was full of meaning and good sound sense. He said that he had often exchanged sentiments with a gentleman (whose name

I shall omit at this time), on the subject of farming, and that in no one thing did they differ so materially as on that of employing laborers; he always employing such as would *lay up* their wages, while his friend only such as would *spend* them between Saturday night and Monday morning. Subsequently to divulging such sentiments, his friend hired a man from the Green Mountains, in Vermont. He kept him on a few months, when the young man came to him one day, and said, "I want to quit." "Why so?" was the reply. No answer. "Do you want more wages?" "That is not my reason for quitting." "I'll double your wages if you will stay." "Sir," said the young man, "you cannot tempt me with money to labor with such an unprincipled set of eye servants as you have on your farm." "Now," said the gentleman, "I am fully satisfied with the correctness of your practice, friend Hicks; but, from my education and habits, I never shall be able to adopt it." Now, I apprehend the difference between these two individuals to be this: The one had been bred in principles that teach the doctrine of doing to others as they would have others do unto them, considering, thereby, that laborers have their rights, and are entitled, not only to their wages, but to the counsel, friendship, and care of those who employ them, many of whom become as wise, as respectable, and as rich eventually as their employers; while the other, having moved in a different circle, had spent much time in Europe, particularly at the Court of France, thereby imbibing, no doubt, the peculiar notions and sentiments of too many in Europe. These are, that the laboring-man is entitled to nothing more than a subsistence, to make him strong and healthy to do his work; and that, as far as education is concerned, it is as entirely unnecessary for them as for the cattle which they drive. S.

EXPERIMENTS WITH PEAT, FISH, POUDRETTE, AND ASHES.

By the bearer, I send you some of the peat (if it deserves that name) I spoke of, from three different ponds, marked 1, 2, and 3, according to convenience of getting. Can you tell me which is the most valuable? also, the comparative value with barn-yard manure and the best way of using it? (*a*)

Of No. 1, I dug about twenty loads last summer. One parcel I mixed with about one bushel lime to one load of mud, letting the moisture which was in the mud slack the lime. With another, the same as before, with the addition in the course of the fall, of 1¼ barrels of urine to 3 loads poured into the heap, by making holes with a crow-bar; another left in a heap to dry through the winter and pulverize with the frost, with nothing mixed.

Some of each I have spread this spring upon my grass land; as yet I can see no difference, it having been spread but a few weeks. I am also composting some now with my yard manure; am also gathering a few ashes to try a compost of some with them. Will it *pay* to buy some nitrate of soda or saltpetre to put with it, if so, which is the best? (*b*) Or can I make it a good manure without paying out much money? If so, I can hope to induce my neighbors to make some use of it.

As to the experiment I mentioned of trying last year with different manures, as it could not tell large profits I concluded it was thought contraband to publish it, and have not now my exact minutes, but they would not vary much from the following. The lot on which I experimented was part of an old field that had been literally *tilled to death*, and then lain till the domestic grasses had almost entirely run out, and it was covered with bent grass, ferns, &c. I did not come into possession of it soon enough to plow but once. The soil is a sandy loam.—It was sown the first of September (*c*), the ashes and poudrette, with fish, were added, about the middle of the same month, as I could not get the fish before. The portion was one-and-a-half acres. On half an acre, I put 50 bushels leached ashes, cost with cartage, $7; on another, 4 barrels poudrette, cost the same; on the other, 5,000 white-fish, cost $6.50. The part with fish grew the most vigorously, till near harvest, when it began to mildew and rust, and break down, so that though it gave abundance of straw, I got but about 2 bushels of blasted grain from this; so here I am *minus* $5, beside my labor. From the half acre with ashes, it differed but a few quarts from 6 bushels; here again, beside labor, I was *minus* $2.50. This, though side by side with the other, was not blasted at all; the heads being very fair, though not two feet distant from the other, which was, as before said, wholly so. Can you tell me the reason, and how I can prevent it in future? On the last, with poudrette, which was also fair, I got about 9 bushels. Here I am *minus* 25 cents and labor. The straw on both the ashed and poudrette (while the other was so rusty and mildewed), was very bright, without the least appearance of either. (*d*)

I again sowed the whole on the first of September last, in order to test which manure would last the longest without putting on anything more. To-day, the parts on which I put the fish and ashes, look the most vigorous; the results, however, must remain till harvest. Should I then find myself *plus* far enough, that I may not discourage others, I may, with your leave, venture to scribble again, and also propose some more queries. H. C. Sanford.

Essex, Ct., May 15, 1845.

(*a*) Nos. 1 and 2 are not what is known in this vicinity as peat, nor do they resemble any thing we ever met called by that name. They seem to be the roots of grass and aquatic plants, mixed with more or less pond mud. No. 2 has least of the pond mud, and is therefore the most valuable specimen. Nothing but a strict analysis could tell its comparative value with stable manure. The best way of using this vegetable matter (Nos. 1 and 2) is, first, put it into pig pens and the cattle yard, and mix it up with the manure. A compost made of equal parts of this and barn-yard manure, would be nearly of the same value as the ordinary kind from stables. Second, compost it with unslacked lime, at the rate of ten bushels of the latter, to one cord of the former. Put a layer of the peat one foot deep, then a layer of lime, and so on, till the heap is made. Let it lie six months, then toss it over well, and it is fit for use. A dry time in autumn is the best season to lay up this compost, it will then be fit for use the following spring. Third, compost it with fish. Put a layer one foot deep, then a layer of fish 3 inches deep. When the pile is complete, cover it with 3 feet of the peat and muck. Let

it lie four to six months, then toss it over for use. Put no lime with this compost. Fourth, unleached ashes at the rate of 15 bushels per cord, will also make a good compost. Fifth, it may be spread broadcast upon the land and plowed in, in the fall of the year, but composting is much preferable.

No. 3 is rather a poor quality of muck, or more properly, pond mud. The best application of this is to spread it broadcast upon grass land, one inch thick, in the fall of the year. If it be not too far to cart, it may be used as a top-dressing on grass. The only way to test its value is to make some little experiments with it.

(*b*) We doubt whether it will pay to put either nitrate of soda or saltpetre with these specimens. The former would be the most valuable, as it contains 17 per cent. more nitrogen in it than the latter, and has been found about that per centage the most efficient in vegetation. Saltpetre is worth 7 to 8 cents per lb., nitrate of soda 4½ to 5½ cents.

(*c*) Our correspondent does not say with what grain the land was sown, but we suppose wheat or rye—probably the latter.

(*d*) The land was very poor and should have had a clover or buckwheat crop or two, first plowed in. But it would have been still better to have manured it with 30 cords per acre, of good barn-yard manure, or compost made as recommended above, then planted with corn or potatoes, and follow with grain and seed, down to grass. The rich animal matter of the fish was in too great a proportion unquestionably to the other ingredients in the soil, necessary for the grain crop, and hence blasting and mildew. Had a compost of fish and peat been applied to the land, followed with a hoed crop, then limed or ashed at the rate of 50 bushels per acre, our correspondent would have doubtless obtained good crops. To answer his questions more fully, would lead us into an elaborate essay, and we must refer to the preceding volumes of this periodical for information. In conclusion we would say, that 20 bushels of charcoal mixed with 1,000 fish, would make a very good compost. There is brush enough which can be gathered every year from most any farm, to make considerable quantities of charcoal, and it is so small, that it would burn a first-rate fine quality, fit for immediate use.

IN AND IN BREEDING.

The following letter was addressed to Mr. L. F. Allen by a gentleman in Ohio. For the satisfaction of all those who may be interested in such matters, we insert it with the reply. Mr. A. does well to recommend *caution* in the matter of in and in breeding; for it not only requires great knowledge, judgment, and experience, but the *genius* almost of a Bakewell, to pursue it safely to any extent. We should just as soon attempt to instruct a three year old child how to use a sharp razor without injuring itself, as the great mass of the public upon the science of *in and in breeding*. It is one of those things we have as yet said little about in our periodical, because we have thought it could do little or no good:

"I have derived much information from the Agriculturist on various subjects, but none on this point, viz., the effect of breeding with animals nearly related. I do not know what is the technical term; but this is what I wish to know: I buy one bull, or buck, or boar, with the idea of improving the breeds. Well, the next generation are his own calves, or lambs, or pigs. Or, if I breed from the progeny, they are own brothers or sisters. You get my idea. What I want to know is the effect of this breeding upon the stock. There seems to be reason in prohibiting near relations, men or animals, breeding together. Is there any physiological injury in such breeding? Or must I buy several animals to prevent this? Within what degrees of relationship is breeding admissible, if it is prohibited at all? Now this may be a very familiar matter to others; but I have no knowledge whatever on the subject and only a vague idea that there should be some prohibitions—that a male should not be bred to his own sister, or his own offspring, and perhaps, father. May I ask of you to occupy one of your valuable letters to the Agriculturist with this subject soon? INQUIRER."

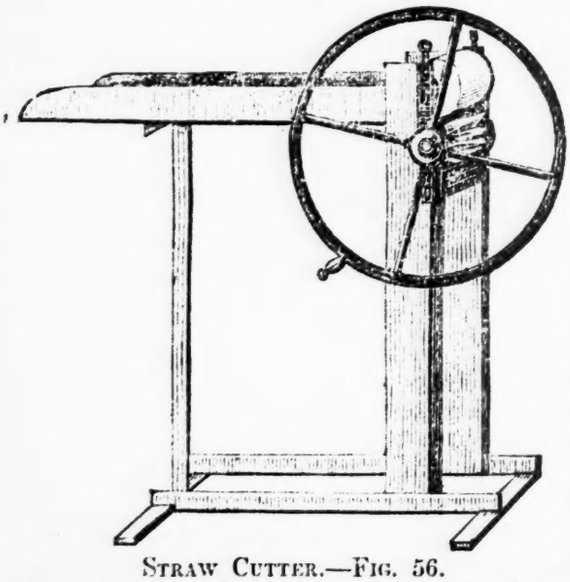
"Breeding in and in" is the term used among breeders of stock, when *close* breeding, that is, father to daughter, son to mother, brother to sister, and all near affinities, are practised. This will do very well, and to a considerable extent, where certain valuable qualities are desired, which the animals you wish to breed from possess. But to do so successfully for any number of generations, requires great strength of constitution and general stamina in the animals on both sides, and long experience, great judgment in the breeder to select such animals as sires and dams, to accomplish it successfully; and therefore, for the general or casual breeder, I would recommend that "in and in breeding" be carried no farther than *one* generation—that is, the sire may be put to his own daughter, and the son to his own mother, for one generation only, not to be continued to grandson or granddaughter, unless under the circumstances I have alluded to above. Brother to sister is considered *closer* breeding than sire to daughter, or son to mother, and of course not so much practised among scientific breeders. In merely raising common cattle, this subject is little thought of, and the plan need not be practised; but it has been by in and in breeding that the finest animals in the world, and the celebrated "improved" domestic stock of all sorts, have been produced; and to do so with success is a nice and most scientific course of proceedure, which, with our helter-skelter American notions, our farmers will be slow to adopt. Our people, as a body, will not pay for all this pains; and till we get more refined notions about these things, and better appreciate the value of *good* breeds of all animals, the nice, pains-taking breeder will hardly get remunerated for his trouble. Improvements, both in theory and practice, however, are slowly progressing in our country, and the time may finally arrive when the value of good breeding in our domestic animals will be properly appreciated.

To go further into explanation of the *science* of breeding would require a labored essay, which I have neither the time nor the ability at present to write; and I trust that before long the pages of the Agriculturist will inform its readers on that subject. There have already been published some selections in that paper, which may be read with profit by any *considerate* breeder of domestic stock. L. F. Allen.

Black Rock, June 10, 1845.

HOVEY'S STRAW CUTTER.

In regard to my straw cutters, I will briefly state, commencing with No. 1, that the frame and straw box is similar to those that have been in common use, except mine are made in a manner more substantial and of superior workmanship, and joint bolts and wood screws are used instead of nails and pins. The running parts of this machine consist of a cylinder, on which are six spiral knives, fastened by screws to six spiral wings, cast on the cylinder. On the shaft or arbor of said cylinder is a balance wheel and crank handle, which is to give motion to the machine. Immediately above the cylinder of knives is a hide roller, about 3¼ inches in diameter, and 6 inches long, which, by means of two screws, can be pressed down so as to come in equal and easy contact with the outer surface of the cylinder of knives, between which the cutting operation is performed. The edges of the knives come in contact with the hide roller as they revolve in connection with each other. This motion serves also to draw in the feed after it has been placed in the box, and makes it a self-feeding machine. This simple combination of a cylinder of knives with a hide roller, constitutes the whole moving operations of this important machine, and performs the double purpose of cutting and self-feeding. But the most important part of this machine may be described as follows:



Straw Cutter.—Fig. 56.

These knives are fastened on to the wings on the cylinder by means of two or more binding screws, which pass through the centre of the knife near each end. A slot is cut out from the hole in the knife, through which the screw passes to the inner edge of the knife, the size of the screw, so that by simply starting the binding screws back a little, the knives can be taken off separately without taking out the binding screws, and by means of two set screws, which are inserted in to the cylinder, directly under the inner edges of said knives, running towards the centre of the cylinder. The heads of those screws are slotted like wood screws, and screwed down nearly even with the outer surface of the cylinder, between the wings. On the heads of the screws, near each end, the inner edges of the knives rest, so that by turning out those set screws with a screw-driver, it will force the knife out from the centre of the cylinder, and by this arrangement all the knives on the cylinder are easily adjusted; and in case any one knife should, by extra grinding, or by wear or accident, become more narrow than the rest, it can be set out so as to be perfectly cylindrical and uniform with all the knives on the cylinder; and when so adjusted the binding screws can be screwed up, and hold them firm against the spiral wings. These wings serve to strengthen the knives and support them in their proper position, by means of which the largest cornstalks can be cut in these machines with ease and dispatch.

No. 1 cutter, I think, will cut about 100 lbs. of stalks, hay, or straw, in twenty minutes, by hand power. The hide roller is formed of the best prepared raw hide, and made solid by slipping hide washers or collars on to an iron shaft, and pressing them together with a pressure of more than ten tons before they are turned off. The spiral position of the knives is such, that one end of a knife leaves the hide roller at the same time the next one approaches it; by this means the resistance is uniform and equal; and in consequence of the convex form of the edges of the knives, the uniform manner in which the cutting is performed, together with the angular manner in which the substances are cut, renders this plan the most rapid and easy of any method now in use for the above purpose. The above described machine is the smallest size that I make at present. The others are made on the same plan, and vary only in size and strength.

No. 1	cuts	100	lbs.	hay, &c.,	in	20	minutes.	Price $12.
" 2	"	"	"	"	15	"	"	15.
" 3	"	"	"	"	12	"	"	20.
" 4	"	"	"	"	10	"	"	25.
" 5	"	"	"	"	8	"	"	30.
" 6	"	"	"	"	5	"	"	35.

The above are estimated to work by hand power, and cut straw and cornstalks with the same rapidity as hay. If water or horse power is used, it increases their power of cutting; for No. 5 will then cut 100 lbs. of hay, &c., in five instead of eight minutes.

No. 1 to No. 6 cut the feed about 1¼ inches long; the other sizes about 1¾ inches. Nos. 1, 2, 3, and 4 have six knives on the cylinders; No. 5 has eight; No. 6 has twelve knives. The size of the hide rollers varies from 3¼ to 5 inches in diameter, and from 6 to 8 in length, according to size and price of the machines. The number of revolutions required in the above calculation would be, by hand power, about 40 per minute, and about 60 by horse power. Either of the power cutters are capable of cutting a ton of stalks, hay, or straw, in one hour, if it can be put into the box. The cylinder may run with safety from 60 to 100 turns per minute.

The advantage of having the roller above the cylinder of knives is obvious, from the fact that without gearing the crank would not turn the cylinder the right way without turning backwards; and from another fact, that grit or gravel in the hay will not lodge on the hide roller when it is above the hay, and this prevents in a great measure the dulling of the knives. Were the roller at the bottom, or under the knives, the dust would fall into the indentations made in the roller by the pressure of the knives, and in time would become full of grit and gravel; besides, the machines are more simple without gearing, and less likely to get out of repair. Wm. Hovey.

Worcester, Mass., May 25, 1845.

SPRING PIGS MORE PROFITABLE THAN STORE PIGS.

KNOWING your wish is to circulate useful information, I place at your disposal sundry facts connected with an experiment to ascertain whether any advantage could be derived from keeping pigs through the winter. From this I am of opinion that to keep what are usually termed "store pigs" is unprofitable to the farmer, unless the number kept is confined to the consumption of food only (house offal) that has no marketable value; for it is clearly proved by the statements below, that the weight gained during the cold season will not compensate for the extra cost of six months' feeding.

The pigs used for the experiment were of three litters, from my own piggery, viz:

A, 3 pigs, half Chinese and half Berkshire.

B, 3 pigs, half grass and half Berkshire.

C, 3 pigs of same family as B, but a subsequent litter.

Class.	Farrowed.	Slaughtered.	Age.	Weighed dressed.	Average.	Gain of weight per day during life.
				lbs.	lbs.	oz.
A	Oct'r 10, 1842.	Dec'r 17, 1844.	14 months 7 days, or 433 days.	284 285 325	298	11
B	Oct'r 22, 1843.	"	13 months 26 days, or 421 days.	296 304 339	313	$11\frac{11}{12}$
C	April 10, 1844.	"	7 months 27 days, or 241 days.	240 250 257	249	$16\frac{6}{12}$

The pigs of class A had not the advantage of sucklings, the sow having died in the act of parturition; they are an encouraging example of what may be accomplished by care and attention for a few days after birth. Each class was fed on the same kind of food, treated in the same manner, and attended by the same swineherd. B and C were weaned at six weeks old, and till then at no expense for food.

As a further illustration of the truth of my hypothesis, let us, from the whole age of B, 421 days, and the whole age of C, 241 days, deduct the age when weaned, 42 days, and we shall have the time fed of B 379 days, and of C 199 days.

Again, let us from the average weight of B, 313 lbs., and the average weight of C, 249 lbs., deduct the presumed weight if slaughtered when weaned (20 lbs.), which gives the weight gained by B during the feeding 293 lbs., and of C 229 lbs.

	days.	lbs.	day.	oz.
C, - - -	199 :	229 : : 1 =		$18\frac{4}{12}$
B, - - -	379 :	293 : : 1 =		$12\frac{3}{12}$
Extra gain of C per day, -				$6\frac{1}{12}$

But another and more common-sense view of the subject is, that B was fed a little over 12 months, and gained 293 lbs. C was fed a little over 6 months, and gained 229 lbs. Difference for 6 months' feed only 64 lbs.

Superadded to these facts, it must be admitted that B, from 6 months' to 12 months' feeding age, consumed much more food than C consumed from 0 to 6 months; consequently that B, during his whole feeding time, consumed more than double the quantity that C consumed during his whole feeding time. *Ergo*, that C was about 100 per cent. more profitable than B.

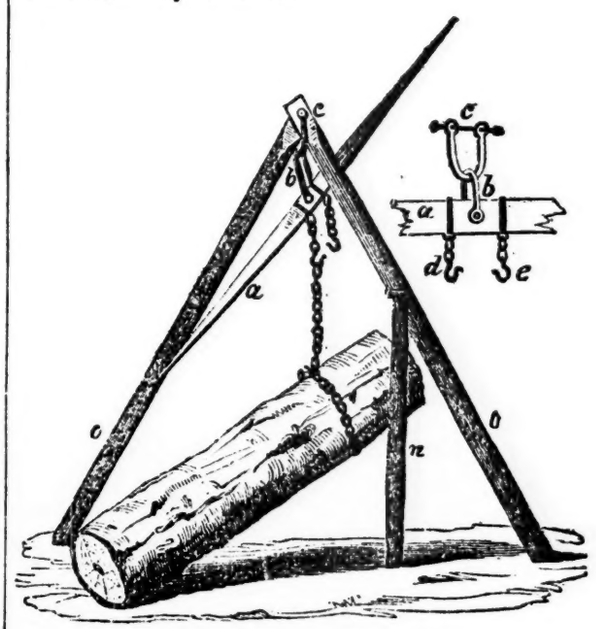
W.

Casina, May 20, 1845.

We esteem the above little article one of the most valuable ever communicated to this periodical. It fully corroborates our advice given in the April number, page 138, on the subject of "Raising Pork." We wish farmers were more in the habit of making such experiments, and giving us the results; their business would then become one of strict calculation and not mere guess-work, as is now too generally the case.

A LOG LOADER.

WITH this I send you a sketch of a very simple and useful machine, both in the farming and mechanical arts, by the means of which great labor and much time may be saved.



LOG LOADER.—FIG. 57.

It consists of a double acting lever, *a*, 10 feet long, suspended in the middle by the clevis, *c*, which is hooked in the clevis, the bolt of which passes through the upper end of two shear poles, which admits them to open and shut, as best suits. The hooks *d* and *e* are placed 2½ inches from the fulcrum, connected to the staple by a link and swivel, which enables the hooks to be turned in the links of the chain either way.

The shear poles may be of a length suited to the weight and height of the object to be raised. For loading logs on a wagon, they should be 6½ feet; if it is a short or round object, a third shear pole should be set against a pin in one of the other legs. The machine is to be placed over the object to be raised; a chain is then to be placed around it, one end of which is fastened to one of the hooks of the lever, the lever is then worked, and the hooks to be hooked one below the other alternately.

V. H. HALLOCK.

Milton, N. Y., April 22, 1845.

TO MAKE FRUIT TREES THRIFTY.

In the month of March wash them as high as a man can reach with one quart of whale oil soap diluted in fifteen gallons of water; and if in April there are caterpillars, give them another dose; then put round the roots of the apple and pear trees two or three shovels full of charcoal dust or anthracite ashes; to the peach, plum, and nectarine trees, I have tried various experiments, yet have hitherto been most pleased with tobacco stems, which are purchased at two cents per bushel Half a peck of stems round each tree is sufficient. The roots are first laid bare; the tobacco is then placed over them and covered with soil. To this, three or four shovels full of anthracite ashes may be added with advantage. The past spring I have tried on all, save peach and nectarine trees—which were so diseased by worms that I ordered them cut up—an application of warm (not *hot*) coal tar from the gas house. We first removed the earth from the roots, picked out the worms, and then with a painter's brush covered the trunk of the tree eight inches up from the roots. After this the soil was immediately replaced around the tree. The effect was astonishing. In May we applied half a pint of guano as a top dressing to each tree, and thriftier trees, fuller of fruit, and with a deeper, richer green foliage, cannot be seen. I mean to treat all my peaches in this way, as the cheapest and best manner of protecting them. Two peach trees I gave up last fall as past all hope of saving. On these I tried an experiment of putting to each fifteen gallons of urine, neutralized with a peck of plaster of Paris. The trees are now living, and the leaves are green; but whether they will thrive well remains to be seen. I think, however, the dose will effect a cure; and if so, it is worth knowing. You shall have the result hereafter. R. L. Colt.

Paterson, N. J., June 5, 1845.

FENCES.

I have noticed in particular what you have said, in regard to the *barbarous* custom of enclosing land with fences. Now, I like your plain, honest bluntness, in attacking some errors which our forefathers fell into, and to which we, their descendants, so pertinaciously adhere. This is sometimes the only way to provoke discussion, and then good may result from it. I, for one, have spent much of the strength of my days, clearing up and fencing a few acres of land, and it has cost me more sweat and money to do it, than all (*pecuniarily* speaking) that I or my posterity can ever get for it. But I have done the best I could, and am satisfied. I can conceive, that in a country where there are no stones for fencing, such a system as you advocate, might and ought speedily to obtain; but in all stony and mountainous districts, it would be more difficult. *True*, stones if cleared from land, might be put into places of deposit, and sunk into the earth with less cost than fencing. But it strikes me, that this is not so easy and practicable as on plain lands. Will you give me a little more light on the subject? L. D. Clift.

Carmel, Putnam Co., N. Y.

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Within the past few weeks we have received several letters of a similar purport to the above, and judging from these, our articles on the subject of fences are likely to attract more favor than we at first supposed they would, and do some good, though we are not so sanguine as to believe that changes will be very rapid. Some say they shall abolish half the division fences on their own lands this year, and hope ultimately to be rid of them entirely; others write that when their present fences decay they shall not renew; again, those who were planning various new divisions, declare they shall give them up,—adding in repeated instances, that their fences alone, for the last 30 years, have cost as much as the farms would sell for now, exclusive of the buildings!

Where it becomes necessary to clear the land of stones, and it is about as cheap to lay them up in fences as to otherwise dispose of them, we should have no objection to their being used in this manner. But this is seldom the case, and instead of fencing, we would recommend farmers to cast about and see if there are not bridges to build; causeways to make; ditches and ravines to fill up; roads to Macadamize: and farm-buildings, though the first cost is greatest when made of stone, instead of wood, yet they last so much longer they prove cheaper in the end. Stone is wanted for various other purposes which we need not enumerate; and to the person who wishes to get rid of them without embarrassing himself with fences, he will, without much teaching, find many a place for their safe deposit. We respectfully commend the subject to the consideration of our hard-working yeomanry.

GEDDES HARROW.

I observed in the American Agriculturist for this month, a cut of my harrow, accompanied by some remarks that seem to require notice.

Messrs. Ruggles, Nourse, and Mason, say, they have "made some improvements in it; such as to confine each tooth with a screw nut and washer, tapering the tenon of the tooth through the timber, which does away with all liability to become loose."

Upon a prairie where there are no stones, and teeth very seldom require sharpening, this may be an improvement; but upon the stony hills of New England, or Western New York, it will be found that the old way, of making the teeth of extra length, and leaving them some distance above the top of the timber, in the first instance, that they may be many times sharpened, before they become too short, is the best. A nut by drawing the tooth up in tightening it, shortens it, and the wear of the earth below shortens it, so that between both these causes, the teeth will soon require to have pieces welded on to restore them to their proper length. As to the *superior finish* that Messrs. R. N. and M. give the harrow, no one who has used as many of their superb implements as I have, can for a moment doubt.

Mr. Wilkinson, of Union Vale, has "arranged handles for lifting the harrow when clogged—it has round iron teeth, instead of square ones, with a pair of draught clevies."

The handles were shown at Poughkeepsie, and to the driver may be of some advantage; but they render the harrow much less portable, as with them on, one half cannot be turned over on the other. As to the round teeth, I am not able to discover their superiority. The pair of "clevies," remind me of my first attempt at hitching on to my harrow, a short chain fastened at each end to one of the centre pieces, and

a ring in the middle. It would not do. When the simple mode of turning a hook on the end of the pivot of the forward hinge suggested itself, I saw that what was before useless, had become of value. Ultimately Mr. Barton, who makes my harrows for sale, proposed that a rod should run quite through both set of hinges, with a nut and washer on the back end, and an eye with a hook in it, on the forward end. In this form it was engraved and published in the Transactions of the State Society for 1843. Since furnishing the drawing for that engraving, a very important improvement has been made by an eye through which the rod runs, about four inches back of the front hinge, screwed into the corner of the centre timber. This prevents the rod from springing from the draught, when in motion.

Mr. Wilkinson has further improved, by "inserting the side timbers at a less acute angle, thus the implement will spread over more surface;" and I will add, consequently not harrow so fine, by just the gain in width.

Mr. W. took a premium on his harrow at Poughkeepsie, and one made by Mr. Barton was on the ground side by side with it. The explanation is this: Mr. Barton had put his harrow in my charge; and as I was, unexpectedly to myself, made chairman of the committee, and as I would not suffer an implement in my charge to compete for a premium that I had an influence in awarding, it was withdrawn.

The harrow is an implement so much used, that a very small improvement in it is of great importance. With a view to bring it to its most perfect point, I invite Messrs. Ruggles and Co., and Mr. Wilkinson, and every other person who may suppose he has made any improvement in the harrow, to appear at Utica, at the next State Agricultural Show, with their implements, and let them be compared one with another. GEO. GEDDES.

Tyler, N. Y., June 9, 1845.

TREES FOR SHADE AND ORNAMENT.

THE spirit of utilitarianism is carried to such an extent in this country, that the ornamental is almost always sacrificed to the useful. "What will be the gain thereof?" is the question propounded, when any project is proposed, instead of saying, in accomplishing this or that object, cannot the useful and the agreeable be united, thus gratifying the eye, and at the same time satisfy the *pocket*, which is the *primum mobile* of the age.

There is nothing that harmonizes the passions of man, quells the evil influences of trade, or adds to the happiness of the soul more, than to throw around him those various charms which are found in the natural world; the green fields, the flowers, the fruits, majestic trees, with flocks and herds reposing beneath their branches, the waterfall, in fact, the panorama of creation as it meets the eye of the agriculturist in his daily pursuits. It enlarges the soul, expands the intellect, and exalts man. If this be the effect of *viewing* nature in her loveliness, with how much more zest can these things be enjoyed, when our own hands have dug the soil, sown the seed, planted the tree, or trained the vine. We view them then as the fruit of our toil; and all know there is more real enjoyment in witnessing the results of our own labor, than in partaking of that which is bought with silver and gold.

These are some of the thoughts which have been suggested to my mind in reading in your May number the description of the beautiful grounds of Mr. Colt, at Paterson. I can say as did the Queen of Sheba to Solomon, when she saw the splendor of his dominions, "the half has not been told of them." Mr. Colt can truly say that, under his cultivation, the barren hills have been made "to bud and blossom like the rose." It has also induced me to make a few observations on the value and importance of shade trees as an ornament to towns and villages, and to propose a plan by which the object may be accomplished with pleasure to all.

It should require no argument to prove the value and utility of shade trees in public streets and roadsides. Yet when I look at many places in the country, more especially westward, I am pained with the thought that so little attention is given to beautifying them with noble shade trees. In too many cases, the streets are as barren of shade as the ocean. The people of New England have paid considerable attention to this subject, and, as a consequence, most of the villages are well cared for in this particular. If any of your readers have passed through the village of Upper Middletown, Ct., they have probably noticed two splendid rows of maple trees running the length of the main street, which improve the appearance of the place more than would the most costly mansion. And as the inhabitants walk beneath the shade of these trees on a summer's day, and feel the cool breeze as it plays among their branches, have they not a just pride in pointing to them, and are they not a strong tie to bind the people to their native place? I mention this place as an instance, because it is my natal home; many more might be noticed, if it were necessary. Take away the elms from New Haven, and it would be shorn of its beauty.

A description of the avenue leading to the residence of Mr. Clay, as given by a correspondent of the New York Tribune, is so *apropos* to our subject, that I am induced to insert it. "Mr. Clay has paid great attention to ornamenting his lands with beautiful shade trees, shrubs, flowers, and fruit orchards. From the road which passes his place on the north-west side, a carriage course leads up to the house, lined with locust, cypress, cedar, and other rare trees, and the rose, jasmine and ivy were clustering about them, and peeping through the grass and boughs like so many laughing fairies as we drove up. His mansion is nearly hidden from the road by the trees surrounding it, and is as quiet and secluded, save to the throng of pilgrims continually pouring up there to greet its possessor, as though it were in the wilderness."

Facts like these might be enumerated to show their utility. But shade trees have their value in a pecuniary point of view, for they increase the value of land in places thus improved. If an individual is choosing a location, he does not look to the worth of the land by itself, but weighs all the advantages and disadvantages the place possesses; and to a man of taste, shade trees would often be the turning of the scales.

The objection is sometimes urged, when public improvements of this kind are proposed, we may not live to reap the benefit, and what use is it to trouble ourselves about the matter. They forget that their posterity will receive it if they do not, and it is a narrow selfish soul that is not willing to do anything for

the future; a spirit which, if carried out by others, would stop many of the public improvements in which mankind are now engaged. What would our country be at this time if our forefathers had acted on this principle? Trees might be planted that would serve the ends of ornament, and be a gain also to the owner. For instance, the maple might furnish sap sufficient to supply the family with sugar; the locust when grown is a valuable timber; the oak and the ash have their various uses, not to specify otbers that might subserve both ends, proposed to be gained by them. Thus, in a selfish view of the case, they can be made profitable, as they would generally be set out in land that is otherwise a waste or common. I would recommend that each man adopt the plan of planting shade trees in front of his dwelling; if this were done by a few persons, others would soon see the advantages of it, and follow their example.

There is no reason why the United States should not stand pre-eminent among the nations of the earth in this respect. Considerable attention is paid to it in England, with manifest advantage to the people. Nature has done everything she can for us; our soil, our climate, our trees, are all favorable to the end proposed,—it only remains for man to do his duty.

These are some of the reasons I would give in favor of a more general system of ornamenting the towns and villages of our country; many more might be urged did space permit. The following is an instance of what has been done by a systematic effort in a town in Orleans county, New York.

A friend (one of those public-spirited men that the world needs more of), on temporarily settling in the western part of this state, was impressed with the negligence of the people in ornamenting the place with shade trees; and determining that something should be done to remove the reproach, went to work in the following manner. He invited all the young men in the town to meet him on a certain evening, as he had a proposition to communicate to them that was for their advantage. This excited their curiosity, and they therefore met him. He then stated to them the condition of their town, that no shade trees were to be seen in all their streets, the great improvement they would be to the place, and then, after their feelings were enlisted in the subject, showed them how the difficulty might be overcome. He proposed to them to form a *Tree Association*, each member of which was to set out one tree and take care of it, and if it died to set out another and another, until he had a thriving tree. In this way each one felt his individual responsibility, and had an incentive to do his work well, lest others should excel him. The consequence was, that more than a hundred trees were at once set out, and now they have the pleasure of knowing that their town will soon be one of the handsomest in the state.

To those villages which are in like situation, I would commend this plan. Form tree associations, invite the young and the old, and the ladies also, to assist you, and let not your places suffer any longer for the want of ornamental shade trees. Go thou and do likewise.

In this article, I have enumerated some of the leading points in favor of shade trees, believing that it was only necessary to bring it before your readers for them to see its value. C. C. Savage.

New York, June, 1845.

ROSA RUBIFOLIA, OR PRAIRIE ROSE.

I notice in many papers recently a description of the native "Michigan, or Eglantine Rose." That description refers to the single flowering variety which is found in great profusion on our own western prairies, whence the title adopted for it by the horticulturists is "Prairie Rose." It is altogether distinct from every other species in its foliage, which assimilates to that of the Bramble, whence it derives its specific title. The qualities which cause the "Prairie Rose" to be highly esteemed, are, first, its rapid growth, which is often 20 to 30 feet in a season; secondly, its extreme hardihood, the latter being a character which is applicable to none other except the Ayrshire, and not to that in an equal degree. My present object is to call your attention, and that of your readers, to the highly interesting *double varieties* of this class, which appear to be unknown to the writer of the notices I have referred to.

One of these sportive productions was found wild in Ohio, and several others have been produced from seed by Mr. Feast and others, and I have been fortunate enough to produce several fine seedlings, and have now at least a thousand seedlings from which I intend to select the most beautiful for propagation. I am also hybridizing this species with the Bengal, Tea, and other perpetual flowering varieties, and hope to obtain that most important desideratum, *a perpetual flowering fragrant climbing rose.* Perhaps I may succeed in obtaining many of that character differing in color, &c. This is the only climbing rose indigenous to our country, as the Cherokee Rose of the Southern States is originally from Asia, and the sweet-briar, which is a partial climber, was introduced from Europe. We have recently made great additions to our establishment, and particularly in the department of roses. Suffice it to say that this class alone now occupies four acres, and comprises above 1200 varieties, among which are all the splendid new ones that have latterly been produced in Europe by hybridizing the various classes. The public taste has become so fastidious, that scarcely any roses are highly prized, unless they belong to the perpetual flowering classes, and the short-lived June roses, which bloom but once, and then but for a week, have fallen into merited disrepute.

W. R. Prince.

Prince's Linnæan Bot. Garden, and Nurseries, Flushing, June 12, 1845.

Marling.—A correspondent in South Carolina thus writes us: "I have been marling continually since the fall of 1841, and find that the longer it has lain on the land, and the better it is mixed with the soil, up to the period of its maximum effect, the greater its influence. The quantity which would improve the *first* crop, will destroy the *third*, as I have proved to my detriment. The remedy, however, is simple; more vegetable matter to prevent the calcium from corroding the roots for want of food."

When our lands at the north are well charged with organic matter, marl has a better effect the third and fourth years than the first and second. We presume the soil of our correspondent is of a thin and light quality, and hence the necessity of plowing under a green crop the third year, or giving it something to supply the needed organic matter.

BONE MANURE.

The farmers on Long Island have been using this article for about fifteen years, and are now making golden harvests as the fruits of their experiments. It was introduced there by an Englishman, who first commenced grinding bone in this country; and so incredulous as to its value did he find the farmers in his neighborhood, that he could scarcely dispose of a bushel to any one. He therefore purchased, in the vicinity of Hempstead, a farm, which was reduced so low as to scarcely produce a crop worth harvesting; but, by a judicious application of ground bones, he made it the most fertile of any in its neighborhood. So practical a demonstration of the advantages of bones as this, could not be resisted, and extreme incredulity gave way to the greatest confidence; and it is now very extensively employed by the largest farmers on the Island, some of whom now use from 500 to 1,000 bushels per annum with success and profit.

When it is to be applied on corn, it is first mixed in a compost with barn-yard manure or swamp muck, in proportion as 1 to 2, and after fermenting two or three weeks, applied in the hill; but wheat, rye, oats, and buckwheat, are the crops mostly chosen for its application. On these the bone dust is sown broad-cast, and harrowed in. The quantity used in this way is from 35 to 50 bushels per acre, according to the previous strength of the soil. For grass lands it answers well, more especially such as have been depastured for some time by milk cows, or other stock. The reason why it acts so beneficially here is, that the animals have exhausted the lands in a great measure of their phosphates, and the bones restore it again to the land, they abounding with 30 to 70 per cent. of phosphate. Another important effect of the application of bones is, that they have a tendency to prevent clover *heaving out*. The clover can be top-dressed any time convenient before September, and just previous to the frost setting in, say the last of November, and the field should be heavily rolled with a common roller. The bones and the rolling tend to stiffen and bind the soil, and make the action of frost less powerful upon the clover roots.

I find the bone dust that I purchased through your agency has acted in a superior manner to any I have before used. I apprehend that this arises from their being ground in a fresher state. *Old* bones, and such as are *hard boiled*, are not near so valuable as fresh ones, especially in their lasting qualities.

Hempstead, Long Island. R. M. Bailey.

FARMING IN NEW JERSEY.

Steeping Corn and Compost.—I observe that some of the farmers in this delightful section of country are trying many of the improvements of the age. A Mr. Weble says he has tried steeping his corn and other grain in a solution of ammonia, and found much benefit from it. Last year that grown from corn thus steeped was in harvest much sooner, and had larger ears than that planted dry in the same field. He also made a compost or mixture of 1 bushel salt, 1 do. lime, 1 do. plaster, and 1 do. ashes, and put half a gill in each hill at the time of planting. This produced nearly one-third more corn than that alongside, planted dry without any of the mixture. Otherwise, the land was manured alike.

Potato Culture.—I noticed a method of treating potatoes which struck me as very good, especially on old ground. First, furrow the field both ways, and then plant in the check or cross of the two furrows, cover them lightly, yet deep enough to have them vegetate quick. As soon as the sprouts begin to crack the ground, go into the field, and from the cart put a fork or shovel full of coarse or green manure on top of the hill, then plow between, turning the furrows together, and cover the manure Always follow with a hoe and see that the manure is well covered. As the rows run both ways, when time to hoe, plow contrary from the first time, and very little labor is required to hill sufficiently and keep the weeds down. The manure is as safe in this manner as heaped up in the yard or field to wait the fall crop. It is not exposed to the sun, nor is it as likely to heat and throw off the ammonia and other properties essential to vegetation, as it would be in larger quantities or heaps. In digging the potatoes and plowing again for the grain crop, the manure is completely mixed with the earth. I go heart and hand for putting all manure into the earth as soon as it can be got from the farm, whether coarse or fine, especially in the spring of the year, instead of heaping it up to rot and waste through the summer.

Mr. Demarest says, he gets nearly double the quantity of potatoes from this method to what he would without this manure. Coarse manure helps to keep the earth moist under it. I have seen potatoes vegetate and produce well, lying only covered with straw, about 6 inches, and no earth over them.

Passaic County, N. J. E.

WESTERN CALENDAR FOR JULY.

Early in this month harvest usually commences, in latitude 39° and 40°, with some variation for higher or lower latitudes. The farmer should bear in mind, that by cutting his wheat a week before the usual time, he avoids the risk of injury from the rust, secures a better yield, and harvests a grain more productive of good flour. But if he shocks his wheat immediately after cutting, it will mould and be much injured. It should either be cradled, or thrown in small grips, as it is reaped, and suffered to lie till it is cured, before binding. When sufficiently cured it should be bound and put in shocks ready to haul to the mow, the stack-yard, or the threshing-machine.

Timothy meadows are usually ready for cutting about the time the operation of harvesting is completed. But as timothy (*phleum pratensis*) when *fully ripe*, contains more than double the quantity of nutritive matter, which it contains, when cut at the time of flowering; and moreover produces a greater quantity of hay (see A. Beatty's Agricultural Essays, p. 233); it should never be cut before the ends are ripe. If cut, when fully ripe, it will cure sufficiently in the swarth; and by the use of the horse rake, the hay may be made with less labor than any other kind. Those who raise hemp should be careful so to arrange matters as to have the hay in stack before hemp is fit to cut, in order to prevent the hay harvest and hemp cutting from interfering with each other.

The garden must not be neglected. The cabbage plants will have been set out, in the previous month, and must be well cultivated in July. This can be done of mornings, while the dew is on the hay.

Cattle, sheep, &c., must be salted as usual.

Prospect Hill, Ky. A. Beatty.

Ladies' Department.

WHAT WOMAN MAY DO.

Ladies of the Revolution.—At the close of our revolutionary war, when our grandmothers attended personally to household duties, from pleasure as well as necessity, a society was formed of ladies residing on farms near one of our principal cities, for the promotion of useful knowledge, and the encouragement of domestic manufactures. They met at each other's houses alternately, once a month, to exhibit each her produce, and to suggest improvements. On that day, particularly, they were not permitted to wear any garment which had not been woven and spun on their own farms, nor place on the table any viand that they had not made or procured from home-grown produce. If the snow-white linen dress was not as delicate as the Irish loom could produce, or the fine blue and white checked apron to be compared with the Manchester gingham, still they were beautiful fabrics, and were worn with more honest pride and pleasure than is generally felt by the modern lady while shining in the gorgeous silks of France. The day of meeting was looked forward to by this little society as one of heartfelt enjoyment, and a charming emulation was excited to procure the best receipts for preparing everything that came under their care on the farm or in the house.

The morning of the day of meeting was spent in comparing the articles each had brought, and in giving and receiving instruction for future improvement; the dinner was equally an object of interest to all, for then came the husbands and brothers to compare whose beef, mutton, and hams were prepared with most care; or which of their fair friends excelled in the less useful though more elegant portion of the feast; and jellies, pastries, and preserves became objects of deep interest; the foaming home-brewed beer, and the sparkling cider were decided unrivalled; and the wines of currant, gooseberry, and even grape, were judged and praised by the guests, amongst whom were often Charles Thompson, Thomas Jefferson, and Benjamin Franklin.

While listening with glowing interest to the details of these happy days, related by one of the society's brightest ornaments and most useful members, I have felt that the humblest topic might be made one of the deepest interest, and that nothing which can contribute to the comfort of others is beneath the attention of a cultivated mind. How eminently useful might such societies be made if extended through our country; and how pleasant the labors of the week or month, if each woman felt that she was working for something beyond mere animal comforts.

Things that may be Learned at Social Meetings.—If at such meetings a few of the elementary works on botany, chemistry, and insects, could be read, how largely would it contribute to their information, usefulness, and enjoyment. Every cook is a practical chemist in a small way, though she may not be aware of it herself; and while she is boiling soap, making yeast, or bleaching her linen, she is performing some nice experiments in chemistry which require knowledge and practice to perform. How much lighter then would be the work of a house if each one knew something of the chemical properties of the ingredients they were mixing, and thus feel certain that some experiments would succeed and some would not. A very little time devoted to well chosen books on this subject will give enough knowledge for household purposes, and when once in the right path of improvement, an intelligent woman will make many interesting and useful discoveries for herself. She will learn that in writing a recipe it is necessary to be very particular in giving not only the exact proportions of the ingredients, but the manner of mixing and the time when each should be added; for on this will mainly depend her success or failure: thus, if she be going to make a light tea cake, she will understand why she had better mix the sour cream or cream of tartar thoroughly through the batter before adding the soda or saleratus, and that when mixed, the cakes must be baked immediately; or that the old notion of the necessity of stirring soup while boiling with a *sassafras* stick could have arisen from nothing but ignorance and superstition. It is a very common saying among good cooks, that they never care for a recipe, that they always go by guess, and that it is nonsense to be so exact in weight and measure. It may be so for them, because, from long practice and good judgment, they have acquired the habit of forming a correct guess at a glance; but wo to the poor family who is obliged to eat the sour, heavy bread, and badly prepared dinners of the cook who has not had the advantage of such knowledge, and who equally disdains instruction. What young housekeeper has not felt the benefit of a clearly-expressed and well-worded recipe, above the common mode of giving one? Take the following example from a book before me:

"*Sponge Cake.*—Twelve eggs, their weight in sugar, half their weight in flour, some grated lemon peel, mix together, bake in paper cases or small tin moulds."

Now none but a good cook who knew how to make sponge cake could possibly succeed by these directions; and none but a very stupid one could fail if obeying the following:

"*Another.*—Take twelve fresh eggs, put them in the scales, and balance them with sugar; take out half, and balance the other half with flour; separate the whites from the yolks, whip them up very light, then mix them and sift in first sugar, then flour, beating all the while, till both are exhausted; add some grated lemon peel; fill paper cases or small tin moulds, and bake them immediately in a moderate oven; if allowed to stand without beating they become heavy. This also makes an excellent pudding, with butter, sugar, and wine for sauce."

A Knowledge of Insects.—Some knowledge of insects and their habits is equally useful to a housekeeper. The woollen moth, the ham skipper, common house fly, and cockroach, and a host of others, are pests that all suffer from and dread; yet no remedy is offered or attempted, because few appear to know their true histories, and are from ignorance unable to guard against them. The woollen moth is a small grey fly, on the wing principally at night, when it is in search of a proper place to deposit its eggs. This it finds in any woollen or fur material that may be exposed. The eggs remain unhatched a longer or shorter time, according to the warmth of the room they may be in. When hatched, they are little worms, which soon spin a sack of silk and particles of the material on which they feed, and so nicely

contrived and ingeniously woven around themselves, that it requires sharp eyes to detect them; and thus they feed securely until their time of change, when they make their escape, if not too closely packed away, and suspend themselves to the wall or ceiling, in some dark corner or unmolested place, until the warm spring weather, when they take wing and immediately seek a home for their future progeny. They never feed in the winged state, and therefore only live a few days. A good house-keeper knowing this, will take good care not to delay packing away her flannels, furs, or cloth, until late in the spring; and at all times be certain that each article is well brushed before being packed, then closely enveloped in a thick linen or cotton cloth, surrounded with pepper, camphor, or turpentine, to prevent the fly from approaching it, or to kill the young worms when hatched, if there should unfortunately be any eggs already deposited. Then each loft, closet, and wall, in the house, should be well swept, and if possible white-washed, to clear away the moths that will always be found hanging around; and no pieces of woollen material, old or new, should be suffered to remain unmolested or exposed.

Fruit and Insects.—To supply the table with good fruit is equally important; and this may be greatly facilitated if the women and children of the house will take it under their care, and spend a few minutes in each day in its culture and protection. A few easy and interesting experiments will show that there is an immense loss of valuable fruit each year, for want of a little knowledge of insects and a few minutes spent in preventing their ravages. For example, take a few fallen plums or apricots, place them in a tumbler nearly filled with earth, cover the tumbler close to prevent the escape of the insects that are in them, and then set it away for a few days or weeks, if it be in the early part of summer, but if late in the season, they must remain until spring unmolested; then carefully turn the earth out, and examine each little lump, and you will find that the worm has left the fruit and made for itself a nicely plastered cell, a little larger than its body, where it remains secure from all injury until it has changed from a worm to a little brown or ash-colored beetle (*Rhynchites cupreas*, or plum weevil). If liberated now they will return to the tree and deposit their eggs in the remaining fruit, which soon falls, and thus one well-filled tree may produce two or three separate broods in a year, according to the season or the quantity of late fruit on the tree. I have known many large, profusely-bearing trees never ripen a single plum, until the system of gathering all the fallen fruit, daily, had been practised for two or three years; then were the owners rewarded by an abundant supply. The growth of insect-larva may be advanced or retarded according to the different circumstances under which it is placed. Those hatched in the spring or summer remain but a short time in the chrysalis state, while those fed in the fall never take wing until the spring has prepared food for them and their progeny. This fact should keep lovers of fruit always on the watch, and the task of picking up the fallen fruit be made pleasurable to the children, by offering a reward for each basket full, or a larger share of that which remains than would belong to them if they had been too lazy or playful to protect it.

Many persons believe they have no time to waste on the study of a bug or worm; but let them think for a moment on the immense amount of produce destroyed by these little creatures in a year, and they will feel that a few minutes of each day devoted to their destruction may be time well spent. They will be rewarded, too, by the pleasure derived from the ingenious habits and instincts of these little creatures, given to them for their support and protection by their great Creator; and while studying their wonderful forms and curious histories, learn that each one has its appointed place and use, and that whatever God has thought worthy of his creation and care, is a fit study for us, their fellow creatures. G. P.

NEVER-FAILING RECIPES FOR SOAP.—*Soft Soap.*—To 25 lbs. of clean fat, add 16 lbs. potash dissolved in four buckets of water, and boil it until the fat is entirely destroyed. This you must test by taking out some of the soap in a clean cup, add a little water, and let it stand to cool. If the soap becomes thicker and clearer by the addition of water, and continues so, the soap is done; but should it become thinner or whitish, the ley has not combined sufficiently with the fat, and the boiling must continue until it will bear the water test. When it has arrived at this point, add water until it becomes a thick jelly, then let it boil one hour slowly, when it will be finished and fit to be barreled. The most frequent cause of failure is, that the ley is not strong enough for the quantity of fat; therefore, when home made ley is used instead of potash, the ley should be strong enough to float an egg freely. To each gallon of strong ley add three quarters of a pound of clean grease; if cracknels be used, take one pound to each gallon. Boil it very fast, and stir it frequently. A few hours will suffice to make it good soap.

Hard Soap.—Add salt in proportion of one pint to three gallons, let it boil a few minutes, and put it in tubs to cool. Should the soap be thin, try it in a cup if it requires water. If very strong ley be used, water is necessary to thicken it after the incorporation is complete; this must be done before the salt is added. Next day, cut out the soap, melt it, and cool it again; this takes out all the ley, and keeps it from shrinking when dried. The fat should be prepared before soap-making day, by boiling it in clear water and straining out all the bones and flesh, as they give out but little grease and always make the soap impure. Be careful to save the bones and scraps thus left, as they form the best manure for rose bushes, flowering shrubs, and peach trees. S.

A METHOD OF PRESERVING FRUIT FRESH ALL THE YEAR.—Take of saltpetre one pound, of bole-armeniac two pounds, of common sand, well freed from its earthy parts, four pounds, and mix all together. After this, let the fruit be gathered with the hand before it be thoroughly ripe, each fruit being handled only by the stalk; lay them regularly, and in order, in a large wide-mouthed glass vessel; then cover the top of the glass with an oiled paper, and carrying it into a dry place, set it in a box filled all round to about four inches thickness, with the aforesaid preparations, so that no part of the glass vessel shall appear, being in a manner buried in the prepared nitre; and at the end of a year such fruits may be taken out as beautiful as when they were first put in. —*Family Receipt Book.*

Boys' Department.

THE TOAD.—Boys usually consider the hapless toad, "the most deformed and hideous of all animals," as it has been called—and, what is worse, a butt for every cruel and idle urchin to aim at, and without sufficient reason, the poor thing is treated with almost universal disgust. By some it is thought to be venomous, but this is unfounded; for though the glands on the back secrete an acrid and milk-white humor, there is no evidence of its being poisonous; and the limpid water it discharges when alarmed is said to be by no means deleterious; both of which, in all probability, are only engines of defence against its natural enemies. We well know that a cat will scratch, and a dog or parrot will bite, when provoked; and why should we despise a toad for defending itself when attacked or disturbed? It is true that this reptile is not very beautiful nor prepossessing in its appearance; for it is heavy and lazy in its gait, with a bloated body and carbuncled skin; but look at its beautiful bright eyes, which may vie with those of the hawk, or the perch; and when its valuable services are taken into account, it is to be hoped that it will be considered as deserving of a snug corner in the garden or the conservatory, where it may be petted and cherished like any other domesticated animal, and where its curious and interesting habits may be observed at leisure.

The usefulness of toads under a frame and amongst choice hot-house plants, as well as in gardens and fields, can scarcely be too highly estimated; for it is a well established fact that they live almost entirely upon small worms and insects, and that they will keep melon-beds quite free from ants, beetles, and wood-lice, which they devour by thousands. A single toad will despatch twenty or more of the latter pests in two or three minutes. Blue-bottle and flesh flies are also highly relished by them, and they will likewise attack slugs, wasps, and sometimes bees, when their favorite food is scarce or exhausted.

"The toad," says an eminent naturalist, "is fond of woody, shady, and obscure situations; in summer, of stagnant waters; in winter, of slimy and muddy places, often digging and living under-ground. It is very tenacious of life, and several accounts have been recorded in different countries, of its being found inclosed in stones and trunks of trees, without any visible communication with the atmosphere. It is preyed upon by hawks, owls, and herons, and even by hedgehogs. It is killed by laying snuff on its back." It couples in stagnant water in the spring, and the female is several days in producing her eggs, which, like those of the frog, are enveloped in a mass of jelly; but they are disposed in two distinct lines, sometimes extending twenty or thirty feet in length. The young tadpoles which are hatched from them are smaller and darker than those of the frog; they live in the water until autumn, when they acquire their legs and become terrestrial. The toad has only four toes on the forefeet, and five on the hinder, which are not webbed as in the frog; but there is a small membrane at the base. It has no teeth, and either swallows its food alive, or kills it first by compression. It catches insects with its long, viscid tongue, with a rapidity that the eye can scarcely follow. When we speak of railroad speed, it cannot be compared with the quickness of the motion of this organ, when in the act of capturing a wasp or a fly. The toad casts its skin as snakes and caterpillars do; but it pulls off its old coat (which splits down the back and belly when it is too small) with the assistance of the arms and mouth, and then, it is said, it disposes of its skin by rolling it up into a ball and swallowing it.

BREEDING POULTRY.—As I think you seem to take a good deal of interest in us Boys, and often express, not only a willingness, but a desire to help us on in our endeavors to obtain useful knowledge, I have taken the liberty of writing you a short epistle. With father's consent and approval, I am going to commence the business of raising poultry; but am not going to follow the too long practised examples of our neighbors, who, acting on the principle that "a hen is a hen," and one is as good as another, continue to multiply a mongrel race of good-for-nothing "varmints" of every form, size, and color, except what is desirable to possess.

I have read a number of books on rearing poultry, by different authors, both English and American; but they don't exactly answer the purpose. They are at a deal of trouble to describe a great variety of kinds that have been seen in various parts of the world, and which you and I may never see, and is of no practical benefit that I know of, yet may be interesting enough to the curious. I believe that if you had a mind to do it, you can give us more real useful information on this subject in one chapter than we can find in a whole published volume. What we want to know is, the *principle* of breeding—how it should be conducted—how far the "in and in" system may be practised without detriment—how we should proceed in crossing to gain advantage—whether it will answer to breed from a cock and hen, both being from the same parents—what will be the effect if such a course is continued—how far consanguinity must be removed in order to improve. From this imperfect communication you will at least understand what we want, and if you will have the kindness to answer it you will very much oblige

ONE OF THE BOYS.

Old Bay State, March, 1845.

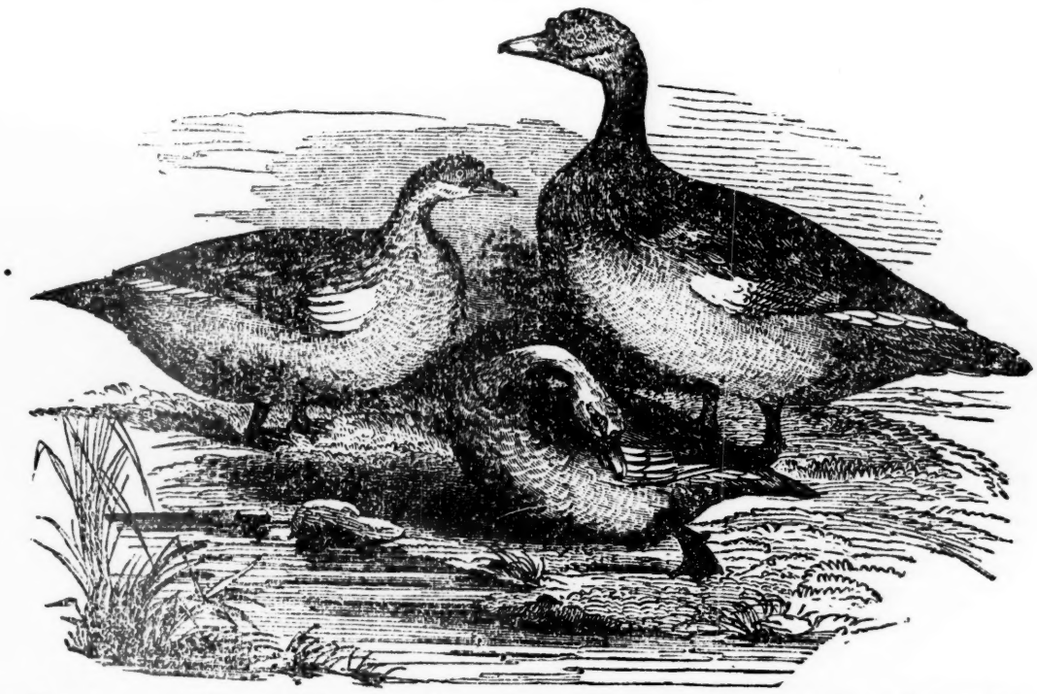
Our correspondent shall be answered in good time.

CURE FOR FEVER BURDEN.—The following quaint and comic old recipe has been sent us by an esteemed correspondent, who says she copied it into her commonplace-book from "The Breviary of Health, by Andrew Boorde, Physicke Doctoure—Anno 1557." We trust that none of the boys who read the Agriculturist will need "*anoynting*" with the "*unguentum baculinum*," especially during harvest-time. We have too good an opinion of them to believe this; yet, lest any one should, here is the recipe for their benefit.

"The 151 chapitre doth showe of an evyll fever, the which doth cumber yonge persons, and named the fever burden or lazy fever. * * * This fever doth come naturally, or else by evyll and slouthful brynging upp. If it do come by nature, then is it incurable; for it can never out of the bone that is bred in the fleshe; if it bee by slouthful brynging upp, it may be holpen by dylligent labour. There is nothyng for the *fever burden* so good as is *unguentum*

baculinum; that is, take a sticke or wand, a yard of length, and more, and let it be as great as a man's fynger; and wyth it anoynt the back and shoulders well, morning and evening, and doe thys 21 dayes—and if this fever wyll not be holpen in that tyme, let them beware of waggynge on the gallowes. And whyles they doe take thys medecine, put no lubberwort in theyre pottage." E. S.

THE MUSCOVY DUCKS.—FIG. 58.



The French naturalists assert that the Muscovy duck is a distinct species, and not a variety. It is much larger than the common duck, and is distinguished by a caruncled membrane of a red color, which Brun compares to a cherry, covering the cheeks, and extending behind the eyes, and swells at the root of the bill; this tubercle is wanting in the female, as also the tuft of narrow feathers, and rather twisted, which hangs behind the head of the male, which stands erect when excited. She is also smaller; both stand low on the legs, have short claws, and the inner ones crooked; are a clumsy bird on the ground, light on the wing, and will perch on fences, &c.

"In a wild state," says Brun, "the drake is of a brownish black color, with a broad white patch on the wings, the female being smaller and more obscurely colored." In the domestic state, it exhibits every variety of color, like a common duck. "At one time," says Brun, "the male is white, at another, the female white; in other instances, both male and female are black, and again of great diversities of color; but they are commonly black, variegated with other colors." The black are glossed with green on the back, and changeable, as they are exposed to the rays of the sun.

The Muscovy duck, it appears, is only found in a wild state in South America. Marcgrave has observed it in the Brazils; it is also a native of Guiana. Travellers assert that these birds perch on the large trees that border rivers and marshes, similar to terrestrial birds; they build their nests there, and as soon as the ducklings are hatched, the mother takes them one by one, and drops them into the water; laying takes place two or three times a-year, and each is from twelve to eighteen eggs, quite round, and of a greenish white; the moulting season begins in September, and is sometimes so complete, that the ducks, finding themselves almost entirely destitute of feathers, are unable to fly, and let themselves be taken alive by the Indians. These birds are as shy as our wild ducks, and it is by surprise alone that they are to be shot.—*Main.*

The Muscovy duck is easily fattened, and a prolific breeder, and hence, and though it is also a voracious feeder, it may be rendered profitable to rear. The male is very salacious, and pairs readily with the common duck, producing, by the cross, a hybrid or mongrel breed, which improves the size of the one and the delicacy of the other, but the mongrels, like that of the wild and tame goose, will not breed. The female will also, though not so readily, pair with the common drake. The hybrid has a deep green plumage, and is destitute of the red caruncled membrane on the cheeks, as well as the musky odor of the rump gland of the Muscovy duck. Out of one hundred eggs of this hybrid sort, M. Parmentier was able to succeed in hatching scarcely twenty ducklings; and hence, to keep up the stock, Olivier de Serres advises to continue crossing every year, by keeping a sufficient number of Muscovy drakes with the common ducks.

Scaliger and Olivier de Serres have given out this duck was dumb.

The Muscovy drakes are often very cross aud quarrelsome with other poultry, and we have known them to attack small children, particularly when they happen to have any food in their hands, and for which reason we have abandoned the rearing of them.—*Amer. Poult. Companion.*

FOREIGN AGRICULTURAL NEWS.

By the arrival of the steamship Caledonia, we have our European journals to the 4th of June.

MARKETS.—*Ashes* depressed, and few sales. *Cotton* had fallen ⅛d. per lb., and was very dull. Stock on hand at Liverpool on the 1st ult., 923,000 bales, against 717,000 same period last year. *Flour* firm, in consequence of the cold unpromising weather. *Beef*, a slight advance. *Pork* and *Lard* quiet. *Lard Oil*, of a pure good quality, in considerable request. *Cheese* brisk, with a trifling advance. *Hemp*, dew-rotted American, sold for 22*l.* per ton—objection, its dark color. *Rice* brisk. *Tallow* improved. *Wool* in good demand. We notice little change in other products.

Money was in fair demand at 2½ to 2¾ per cent.

American Stocks.—Nothing comparatively doing, though a better feeling pervaded in regard to them, in consequence of the late pacific advices. We have before said that we looked upon the idea of a war with Great Britain on account of Oregon, as a mere political humbug on both sides of the water.

The Weather was dry and cold, and unfavorable to the grain crops. Hence a slight advance in the flour market.

Louisiana Sugar.—The first sale of United States' sugar ever held in England, recently took place at Liverpool. The quantity exposed for sale was only small, and it went off very well.

Importation of Wool into Great Britain and Ireland in 1844.—By an official Report of the House of Commons, we find that the total quantities of sheep and lambs' wool, foreign and colonial, imported into the United Kingdom during the year 1844, amounted to 65,079,524 lbs., of which 5,402,098 came from Russia; 1,601,099 lbs. from Denmark; 21,847,684 lbs. from Germany; 1,346,613 lbs. from Portugal; 2,818,353 lbs. from Italy; 1,286,963 lbs. from Turkey, Syria, and Egypt; 1,101,284 lbs. from Morocco; 2,197,031 lbs. from the Cape of Good Hope; 2,765,853 from East India; 2,186,291 lbs. from the States of the Rio de la Plata; 12,406,397 lbs. from New South Wales; and 4,411,804 lbs. from Van Dieman's Land. The total quantities re-exported from the United Kingdom amounted to 1,924,826 lbs.

Exportation of Wool from the above countries during the same year amounted to 8,947,619 lbs.

Importation of other Wools.—The quantities of wool of the alpaca and lama tribe, imported during the year 1844, amounted to 635,357 lbs., of which 47,848 lbs. were re-exported to Belgium and France. The quantity of mohair, or goats' wool, so imported during the same period, amounted to 1,290,771 lbs., of which 97,529 lbs. were re-exported.

Exportation of Woollen Manufactures.—The gross total declared value of the British woollen manufactured cloths, &c., exported from the United Kingdom last year amounted to 8,204,836*l.* Yarns of woollen and worsted, including yarn of wool or worsted mixed with other materials, 1,271,906 lbs.

Importation of Provisions into Great Britain in 1843 *and* 1844.—The cured provisions imported in the year 1843 were as follows: Salted beef, 60,633 cwt.; salted pork, 27,118 cwt.; hams of all kinds, 6,919 cwt.; and bacon, 418 cwt. In 1844 the same articles were imported in the following quantities: Salted beef, 106,766 cwt.; salted pork, 30,780 cwt.; hams of all kinds, 6,732 cwt.; and bacon, 36 cwt. In the latter year the following quantities were taken for ships' stores: Salted beef, 77,248 cwt.; salted pork, 16,987 cwt.; hams of all kinds, 1,298 cwt.

Materials of Good Sheep Dipping Composition.—White arsenic one ounce and a half, to be put into a bag and boiled for half an hour in a gallon of water, two ounces of tobacco with three ounces of soap, to be also boiled in the same quantity of water, and then mixed together, adding two gallons of water. This will be sufficient for from sixteen to twenty sheep; the mixture may therefore be brewed in the quantity required, so that a pound of arsenic will suffice for 150 sheep. Care must be taken that the head is not dipped, but the water must be thoroughly saturated.

How to get rid of the American Bug in Apple Trees.—Mr. Waterton, in his essays on natural history, expresses his conviction, that nothing short of a complete deprivation of air can destroy these destructive insects; and describes the following very simple mode of effectually accomplishing this object:—"I mixed clay with water till it was of a consistency that it could be put to the injured parts of the tree, either with a mason's trowel or with a painter's brush. I then applied it to the diseased places of the tree, and it soon smothered every bug; a second coat upon the first filled up every crack which showed itself when the clay had become dry, and this resisted for a sufficient length of time the effects of both sun and rain. The sickly parts, now effectually freed from the enemy which had been preying on their vitals, were placed in a state to be cured by the healing process of nature, and that nature has done her duty, my apple trees amply testify."

Disinfection of Sewers, Cesspools, &c.—M. Siret finds that a mixture of copperas, charcoal, and gypsum, in the following proportions, if thrown into a sewer or cesspool, will purify it to a remarkable degree: Sulphate of iron (green copperas), 200 lbs. Sulphate of zinc (white copperas), 25 lbs. Vegetable charcoal (common or wood charcoal), 10 lbs. Sulphate of lime (gypsum), 265 lbs.

New Manure.—It is said that Professor Liebig has discovered a mineral substance, which, when combined with guano, will produce one of the most fertilizing manures known. A joint-stock company, with a capital of £120,000 sterling, composed for the most part of leading English capitalists, has been formed for the purpose of carrying on upon a large scale the manufacture of the new compound. Among the subscribers are several eminent professors of agriculture, who, according to the *Impartial du Rhin*, give out that the application of this substance to the culture of lands will produce an entire revolution in the agricultural system.

Plumage of Birds.—An instance of the effect of carbonaceous food upon the color of birds, is exemplified by feeding the common bulfinch, for a lengthened period, on rape seed. Under the influence of that diet, the scarlet plumage on the breast will be observed gradually to turn brown, and, by its further continuance, ultimately to change to a dirty black.—*Medical Times.*

Dressing for Asparagus.— Give it salt and water every fortnight while the summer-shoots are growing; and when they cease doing so, cease salting also. Your stable-dung will no doubt prove a capital preparation, in addition, for the crop of next year, which will be much improved by not cutting this year. Add guano to the salt and water during this summer, the result will pay you. Nitrate of soda will not act well unless succeeded by wet; in dry weather it does more harm than good.—*Gardeners' Chronicle.*

Fibrous Covering Stimulates Vegetable Growth.—A light covering of *straw*, for instance, on grass land, will stimulate its growth in an extraordinary degree; much more indeed, it would appear, than can be accounted for on the supposition that the ground is thus kept moist in dry weather.—*Ib.*

Poultry.—A chicken was hatched in my hen-house, from a nest egg which had so long served the purpose that it was on the point of being removed; it was hatched by the hens which successively chanced to lay their eggs in the nest, aided by the unusual and equable heat of the atmosphere.—*Ib.*

Value of Sea Sand or Marl to Light Sandy Soils.—In a tour through Normandy, in France, Mr. Lorimer remarks in the Journal of Agriculture, that the Normans are not behind the peasantry on our own coasts in availing themselves of the auxiliaries supplied by the sea. This sea marl is usually applied as a compost with farm-yard manure. I was surprised at finding it more generally used in sandy than in stiff clay districts, conceiving, from the state of agricultural science there, that the property for which it was most likely to be prized was that of pulverizing the soil, and not of supplying any chemical ingredients necessary for the growth of crops. On inquiry, however, I found that the peasantry attributed to it quite a different virtue from any I had dreamt of. The reason, they said, why it was chiefly applied to a sandy soil was, that such soil was hot, and required the cool sand to refresh it, whereas stiff clays were cold and required lime to warm them. This explanation, however far from scientific, showed that they had conceived a most distinct and tangible idea of the cause, and had not rested satisfied, as many sets of peasantry would have done, with the mere fact of a real or seeming benefit to their crops from such an application.

The following is the analysis of the above marl, furnished by Professor Johnston:

Organic matter, - - - - - -	5·06
Carbonate of lime, - - - - -	43·50
Gypsum, common salt, and oxide of Iron,	3·43
Insoluble siliceous matter, - - - -	47·69
	99·68

It consists almost entirely of fragments of minute crustations, and of the bodies and skeletons of infusorial animals. It is from the latter that silica is derived, siliceous sand being almost entirely absent.

Death of Mrs. Gilbert.—The deceased lady, actuated by an earnest desire to improve the condition of the laboring classes, has for several years devoted her energies to agricultural affairs, and was a zealous supporter of the allotment system, which she carried into practical operation to a large extent on her estate in this parish and the neighborhood. The benefits resulting from her benevolent proceedings, we believe, have fully realized the expectations which the supporters of this system anticipated. Self-supporting industrial schools have also been instituted by her, and the plan appears worthy of imitation. We fear her loss will be severely felt in this place.—*Sussex Express.*

Steeping Seeds.—Mr. St. George, of Caub, on Rhine, has discovered that chloride of lime accelerates vegetation in an astonishing degree; he has communicated the discovery to a scientific body in Germany, who are causing experiments to be made. He showed me French beans that had been steeped for four hours in water, in which a quarter of an ounce of chloride of lime to one gallon of water had been mixed; the beans were up with two rough leaves, when other beans which had not been steeped, and planted by the steeped ones, were not above ground, and only sprouted a little. The same effect was produced on lettuces, and a little of the chloride, in powder, was put in the pot, in which was a hardy shrub which would never blossom, and in a short time it blossomed out of the hard wood.—*Gar. Chron.*

Manures at Home.—It is a remarkable thing, that all the investigations of chemists and the experiments of practical farmers, and some of them have been truly ingenious, would seem to point at home as the source of the most valuable manures. A great variety of substances have been tried as fertilizers; but the best amongst them are found to be those that may be said to be ready at hand amongst our household stuff. Thus, you have rape-dust as home produce; you have common salt in continual use; you have salts of ammonia, of potash, and of soda, as well as phosphates of lime and magnesia in the urinary and other excretions, and in a form, too, best fitted for vegetation. Sulphate and muriate of ammonia (sal ammoniac) are found in the soot from coal fires; while potash or its salts are found in the ashes of wood fires, as well as in the water ejected after purifying the body, or its covering, by washing with soap, or other detergents. You have abundance of phosphate of lime (bone-ash), &c., in the hair, flesh, and bones of animals. Nitre (or saltpetre) forms spontaneously around you, in the soil, its grand element, nitrogen, being derived from the atmosphere, or from the transformation of the ammonia of decaying bodies; which element, nitrogen, is so essential to vegetable life, that it has been termed the "moving agent," which, acting under the living principle of the plant, moulds into shape the other elements; nay more, you have a substance that contains all these things, a complete type of guano, in the dung of your domestic fowls.—*Nowell's Man. of Field Gard.*

Urine and Guano.—Fourteen to sixteen cwt. of human urine are equal to one cwt. of guano.

Liquid Manure.—The greatest care should be taken to make the most of this valuable article. The channel which is behind the cows, in every well made cow house, may be filled daily, or morning and evening, with bog mould, if it can be had, which will absorb the fluid, and be thereby converted into excellent manure; or a tank, either a hogshead or a cistern, built of brick, and coated with Roman cement, may be placed where the steepage from the cattle and horses can be conducted to it by drains; the tank should be covered, and have a pump in it, by means of which the fluid can be raised into the liquid manure. Cart and spread over the surface of grass land, or pour over compost heaps, which is perhaps the best method of disposing of it. To this tank, the urine and suds from the house, water in which vegetables are boiled, &c., should be conveyed. This is a branch of economy seldom attended to by farmers in this country, and the consequence is—as much valuable manure is wasted about most farm houses as would, if properly disposed of, increase the produce of the farm to a very great amount. According to Liebig, 100 parts of human urine are equal to 300 parts of the fresh dung of horses, and to 600 parts of that of cows; and we learn from the same high authority, that the liquid and solid excrement of an individual contains nitrogen necessary for 800 lbs. of wheat, rye, or oats, or 900 lbs. of barley; we are hereby enabled to appreciate the industry of the Chinese, in preventing the loss of this valuable species of manure. The chemical composition of urine is as follows: In every 1000 parts there are 933 of water, 30 of urea, 17 lactic acid, lactate of ammonia and animal matter, nearly 4 of sulphate of potash, 39 sulphate of soda, 3 of phosphate of soda, and 4½ of chloride of sodium.—*New Farmers' Journal.*

Forcing Violets.—By attending to the following simple directions, a bunch of these sweet little flowers may be had daily, from November to March. About the middle of May, prepare a piece of ground by digging into it a quantity of leaf-mould; plant this with strong runners one foot apart each way; water in dry weather, and keep them clear of weeds throughout the summer; in October take them up with balls, pot them, and place them near the glass in a cold frame; the pots should be plunged in coal ashes or old tan; they will soon begin to bloom, and continue blooming through the winter; in severe weather they may be removed to the green house, conservatory, or drawing-room, &c. To meet a great demand a few pots of the Russian may occasionally be placed in a stove, but neither the Neapolitan nor double purple like stove heat.—*United Gardeners' Journal.*

Editor's Table.

TRANSACTIONS OF THE NEW YORK STATE AGRICULTURAL SOCIETY, together with an Abstract of the Proceedings of the County Agricultural Societies, and the American Institute. Vol. iv., 1844, pp. 523. We have not had time as yet to give anything more than a cursory look over this volume of the Transactions; but have read enough to say, that they are made up this year with less dry and unnecessary matter, than those of preceding years. In this respect the present volume is much superior to its predecessors; but in according thus much, we must add, that the articles generally, are not as racy nor as able. Too many of them, in whole or in part, have previously appeared in the periodicals of the day, and the State Society has the *poor honor* only left to it of *reprinting* them. This we consider disgraceful, and unworthy the Society, and it should be put a stop to in all future publications. It is a strict rule with the English, and we believe with all other respectable foreign Agricultural Societies, to exact an assurance from all contributors to their Journals and Transactions, that the matter is not only original, but that it has *not before appeared in print*. This rule should be immediately adopted by the N. Y. State Society. Another thing, we notice that all its cuts are BORROWED! Is the Society so poor, with over $4,000 surplus funds in its treasury, that it cannot pay for something original in the way of embellishments? We think this is just as disgraceful as reprinting *old matter, revamped* to stuff a portly volume. In setting up the matter, uniformity should be preserved, and the whole leaded or made solid. The typographical errors are numerous, and so palpably gross at times, that they will lead the reader who knows no better, into sad mistakes. Such publications as these are usually looked up to as authority; it is the duty, then, of those who superintend the printing to see it correctly done. We are thus candid in our observations on the Transactions, from a sense of duty to the members at large, and we mean nothing in our tone disrespectful to the officers of the Society. Any reasonable amount of *original* matter can be easily obtained, then why not get it? We would recommend as one means, that liberal premiums be offered for essays on the agriculture of the different counties, after the manner of the Agricultural Societies in Great Britain, taking five to ten counties each year. In this way, the particular agriculture of the State would be ably reported, and a large mass of highly useful matter collected, which would elicit considerable laudable rivalry, and great improvements necessarily follow. We would make the prizes sufficiently high to command the best talent in writing these essays, and when one was not sufficiently deserving, reject it, and repeat the premium. In our humble judgment there is nothing so valuable in British agricultural literature, as the County Prize Essays recently published in the journals of that kingdom.

THE DOG AND THE SPORTSMAN: Embracing the Uses, Breeding, Training, Diseases, &c., of Dogs, and an account of the different kinds of Game, with their Habits. Also hints to Shooters, with various useful recipes. By J. S. Skinner. With illustrations. pp. 224. Lea & Blanchard, Philadelphia. Price 80 cents. The above is a pleasing and useful work, written by a hearty lover of the canine species; but we regret to say, that the author has not gone far enough, and treated the subject in too limited a manner; confining himself mainly to an account of some half dozen breeds, leaving out nearly all that are indigenous to our country. We have never seen a complete work on dogs, although we are familiar with pretty much all published on them in Europe and elsewhere; and we must confess, notwithstanding considerable ability has been displayed in these, that the history of dogs has yet to be written. The first animal we ever owned was a puppy, and wherever we could keep them, we have had a troop of dogs running at our heels. Many extraordinary things have we witnessed of their sagacity, which we would transcribe with great pleasure for any one who would promise to write a complete history of this noble and affectionate animal. The illustrations of Mr. Skinner's work are very spirited and faithful, and do great credit to the artist who sketched them. He must have been a dog fancier, or he could not have drawn them so well.

THE FRUIT AND FRUIT TREES OF AMERICA; or the Culture, Propagation, and Management, in the Garden and Orchard, of Fruit Trees generally; with descriptions of all the finest varieties of Fruit, native and foreign, cultivated in this country. By J. A. Downing. Illustrated with numerous engravings. Wiley & Putnam, New York and London. pp. 594. At length we have the gratification of announcing this long expected work, and from a perusal of it, we can say, that nothing compared with it on the subject of Pomology has yet been published in the United States. The author gave us reason to hope that this work would have been issued sixteen months ago; but in our last visit at his beautiful residence in Newburgh, we found him so desirous to make it as perfect as possible, and worthy the entire confidence of the public, that he should go through twice the labor in preparing it that he at first anticipated, and hence the long delay. This will unquestionably be much to its advantage, and we prophesy that "The Fruits and Fruit Trees of America" will now become the standard pomological work of this country; for the great care which Mr. Downing has bestowed on the different kinds, arranging and connecting numberless synonymes, and giving accurate outlines and descriptions, will make it as safe a guide as it is possible to get up. The culture of fruit is no longer a matter of pleasure and luxury with us, but one now of necessity for food of man and beast; indeed, it has become of vast national importance. A finer climate for fruit, or more productive soil than the United States, does not exist. Our apples are well known in the West Indies, and nearly every country in Europe, and the exportation of them abroad is rapidly becoming a very important business. Then the home consumption of all kinds of fruit is enormous. The author of the work under notice states, that there are more peaches exposed in the market of New York, than are raised in all France. The style of Mr. Downing is lively, clear, and perspicuous. The publishers have got up the work very handsomely, issuing two editions—the one large 8vo., uniform with Landscape Gardening and Cottage Residences, price $2.50; the other 12mo., price $1.75. We anticipate for these editions a large sale.

THE CHEMISTRY OF VEGETABLE AND ANIMAL PHYSIOLOGY, BY DR. G. J. MULDER.—We have No. 2 of this able work on our table, from the press of Wiley & Putnam, 161 Broadway. Price 25 cents.

THE EXPLORING EXPEDITION. Four volumes of the cheap edition of this valuable work are now issued from the press of Lea & Blanchard, Philadelphia. We have some valuable selections from it on agriculture in type, with an illustration; but the crowded state of our columns has prevented its being made up the present month. For a more particular notice, see our last number.

DOWNING'S COTTAGE RESIDENCES. Wiley & Putnam have sent us the SECOND EDITION of this elegant and useful work. We have heretofore noticed this and the first edition at length; and can only add, that before building, every country gentleman should consult it.

British Duties on American Wheat and Flour.—By the following Table, the merchant, miller, or farmer will be able to tell at a glance when it will answer for him to ship wheat or flour to England. It will also show that the high duties almost effectually exclude the people of the United States from ever supplying any considerable amount of these articles; as, by the operation of what is termed the *sliding scale*, whenever the price in England reaches the point which would justify our farmers or merchants to ship, the market is supplied by Germany or other contiguous grain growing countries long before our cargoes reach Liverpool; and as the prices of the articles are lowered the duties go on increasing, so that by the time of the arrival of the American flour, in nine cases out of ten, the duty on a barrel of flour is nearly up to $3.

The Table is calculated as follows: eight bushels to the quarter, and five bushels to the barrel, which is sufficiently near for the purposes intended.

On Wheat and Flour Imported into England from the United States.

Whenever Wheat per quarter (8 *bu.*) *is worth* — The duty is

s.	$ c.		s.	$ c.	s.	$ c.
		under	51	or 12 24	20	or 4 80
51	or 12 24	and "	52	or 12 48	19	or 4 56
52	or 12 48	and "	55	or 13 20	18	or 4 32
55	or 13 20	and "	56	or 13 44	17	or 3 08
56	or 13 44	and "	57	or 13 68	16	or 3 84
57	or 13 68	and "	58	or 13 92	15	or 3 60
58	or 13 92	and "	59	or 14 16	14	or 3 36
59	or 14 16	and "	60	or 14 40	13	or 2 12
60	or 14 40	and "	61	or 14 64	12	or 2 88
61	or 14 64	and "	62	or 14 88	11	or 2 64
62	or 14 88	and "	63	or 15 12	10	or 2 40
63	or 15 12	and "	64	or 15 36	9	or 1 16
64	or 15 36	and "	65	or 15 60	8	or 1 92
65	or 15 60	and "	66	or 15 88	7	or 1 68
66	or 15 84	and "	67	or 16 08	6	or 1 44
69	or 16 56	and "	70	or 16 80	5	or 1 20
70	or 16 80	and "	71	or 17 04	4	or 92
71	or 17 04	and "	72	or 17 28	3	or 72
72	or 17 28	and "	73	or 17 52	2	or 48
73	or 17 52	and over			1	or 24

Whenever Flour per barrel is worth — The duty is

s.	d.	$ c.		s.	d.	$ c.	s.	d.	$ c.
			under	31	10½	or 7 65	12	6	or 3 00
31	10½	or 7 65	and "	32	6	or 7 80	11	10½	or 2 85
32	6	or 7 80	and "	34	4½	or 8 25	11	3	or 2 70
34	4½	or 8 25	and "	35		or 8 40	10	7½	or 2 55
35		or 8 40	and "	35	7½	or 8 55	10		or 2 40
35	7½	or 8 55	and "	36	3	or 8 70	9	4½	or 2 25
36	3	or 8 70	and "	36	10½	or 8 85	8	9	or 2 10
36	10½	or 8 85	and "	37	6	or 9 00	8	1½	or 1 95
37	6	or 9 00	and "	38	1½	or 9 15	7	6	or 1 80
38	1½	or 9 15	and "	38	9	or 9 30	6	10½	or 1 65
38	9	or 9 30	and "	39	4	or 9 45	6	3	or 1 50
39	4½	or 9 45	and "	40		or 9 60	5	7½	or 1 35
40		or 9 60	and "	40	7½	or 9 75	5		or 1 20
40	7½	or 9 75	and "	41	3	or 9 90	4	4½	or 1 05
41	3	or 9 90	and "	43	1½	or 10 35	3	9	or 90
43	1½	or 10 35	and "	43	9	or 10 50	3	1½	or 75
43	9	or 10 50	and "	44	4½	or 10 65	2	6	or 60
44	4½	or 10 65	and "	45		or 10 80	1	10½	or 45
45		or 10 80	and "	45	7½	or 10 95	1	3	or 30
45	7½	or 10 95	and over					7½	or 15

On Wheat and Flour Imported into England from Canada.

Whenever Wheat per quarter is worth — The duty is

s.	$ c.		s.	$ c.	s.	$ c.
		under	55	or 13 20	5	or 1 20
55	or 13 20	and "	56	or 13 44	4	or 96
56	or 13 44	and "	57	or 13 68	3	or 72
57	or 13 68	and "	58	or 13 92	2	or 48
58	or 13 92	and over			1	or 25

Whenever Flour per barrel is worth — The duty is

s.	d.	$ c.		s.	d.	$ c.	s.	d.	$ c.
			under	34	4½	or 8 25	3	1½	or 0 75
34	4½	or 8 25	and "	35		or 8 40	2	6	or 60
35		or 8 41	and "	35	7½	or 8 55	1	10½	or 45
35	7½	or 8 55	and "	36	3	or 8 70	1	3	or 30
36	3	or 8 70	and over					7½	or 16

In these tables the pound sterling is computed at $4.80, which is the legal value. The actual value is $4.85 *a* $4.87.—*New York Tribune.*

To Make Vinegar.—Take eight gallons of clear rain water, add three quarts of molasses, put into a good cask, shake well a few times, then add two or three spoonfuls of good yeast, or two yeast cakes. If in summer, place the cask in the sun; if in winter, near the chimney where it may be warm. In ten or fifteen days, add to the liquor a sheet of brown paper, torn in strips, dipped in molasses, and good vinegar will be produced. The paper will in this way form what is called the "mother," or life of vinegar.—*New Gen. Far.*

A Cent in an Ox's Liver.—Mr. Walter Hasty of Limington, a few days since, found a *cent* embedded in the middle of an ox's liver, which he was cutting up. The liver was entirely closed around the cent, and on removing it the imprint of the letters was seen upon the parts with which they had been in contact. Mr. H. bought the liver in Portland. We have the cent in our possession. It is a halfpenny of Lower Canada, and bears date of 1837. How it could have got into the place whence it was taken, may be matter of speculation for the curious.—*Saco Democrat.*

Pork Business in Sciota Valley.—The number of swine slaughtered there last year was 121,800; this year, 48,350; showing a deficit from last year of 73,450.

Preservation of Apples.—A gentleman from the northern part of Indiana recently communicated to us a fact in regard to the preservation of apples, which will be new to many of our readers, and valuable to all farmers. He says that to keep apples from autumn to June, he places them in a shallow hole, dug as for Irish potatoes, having covered the bottom with cornstalks or straw, and the straw with dirt to the depth of about five or six inches. No shelter is placed over them. As soon as the severe winter arrives, and the ground and perhaps the apples themselves become thoroughly frozen, straw is again placed over the frozen heap, and the whole again covered with a coating of earth—this time ten or twelve inches thick.

The object is to keep the first coating of earth frozen until spring, and then cause it to thaw very slowly.

The same treatment may be given to turnips, Irish potatoes, beets and carrots. Any of those roots may be thoroughly frozen without injury, provided they are covered well over, and suffered to thaw by slow degrees.

Sweet potatoes are almost the only exception among roots to this rule. They are injured by a small degree of cold and without being frozen. If in the frozen state, an Irish potatoe is put into cold water until the frost is out, and then cooked, it will be as good as if it had never been frozen. All these are facts which we know from our own experience and that of many others.

We do not know to what paper to give credit for the above.

Analysis of Seed Cotton as a Farmer—not as Chemist.—I have, as is my usual custom, weighed and ginned out a lot of cotton, and give the result of the analysis. The loss of thirteen lbs. I am unable to account for, knowing accuracy and care were observed; for I weighed every parcel and ginned it myself—for where popular accuracy is required, I do all the work I can.

Weight of seed cotton,			404½ lbs.
"	Cotton seed,	274½	
"	Cotton,	114	
"	Motes,	3	
"	Loss.	13	404½ lb

The seed measured heaping measure, 11 bushels. The seed weighed per bushel 25 lbs.

It thus requires 1410 lbs. of dry cotton to make a bale of 400 lbs., exclusive of baling and rope, which contains 35 bushels of seed, and yields the small average of 28 lbs. per cwt.—*South West Far.*

Maple Sugar.—The Montpelier Watchman estimates the value of the sugar crop of Vermont, the present year, at $1,000,000.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, JUNE 23, 1845.

ASHES. Pots,	per 100 lbs.	$3 81	to	$4 00
Pearls,	do.	4 12	"	4 25
BALE ROPE,	lb.	6	"	9
BARK. Quercitron,	ton,	22 00	"	23 00
BEANS. White,	bush.	1 25	"	1 50
BEESWAX. Am. Yellow,	lb.	28	"	33
BOLT ROPE,	do.	12	"	13
BONES. ground,	bush.	40	"	50
BRISTLES. American,	lb.	25	"	65
BUTTER. Table,	do.	15	"	18
Shipping,	do.	8	"	11
CANDLES. Mould, Tallow,	do.	9	"	11
Sperm,	do.	25	"	38
Stearine,	do.	20	"	25
CHEESE,	do.	4	"	8
COAL. Anthracite,	2000 lbs.	4 50	"	5 50
CORDAGE. American,	lb.	11	"	12
COTTON,	do.	5	"	10
COTTON BAGGING, Amer. hemp,	yard,	13	"	15
American Flax,	do.	16	"	17
FEATHERS,	lb.	26	"	33
FLAX. American,	do.	6½	"	7
FLOUR. Northern and Western,	bbl.	4 30	"	4 88
Fancy,	do.	5 00	"	5 50
Southern,	do.	4 30	"	4 88
Richmond City Mills,	do.	6 50	"	7 00
Rye,	do.	3 00	"	3 25
GRAIN—Wheat, Western,	bush.	1 00	"	1 08
Southern,	do.	1 00	"	1 05
Rye,	do.	65	"	67
Corn, Northern,	do.	46	"	48
Southern,	do.	44	"	46
Barley,	do.	50	"	52
Oats, Northern,	do.	36	"	37
Southern,	do.	30	"	32
GUANO,	100 lbs.	2 50	"	3 00
HAY,	do.	40	"	46
HEMP. Russia, clean,	ton,	190 00	"	200 00
American, water-rotted,	do.	105 00	"	185 00
American, dew-rotted,	do.	75 00	"	125 00
HIDES, Dry Southern,	lb.	9	"	10½
HOPS	lb.	13	"	14
HORNS,	100.	2 00	"	8 50
LEAD,	lb.	3	"	4
Sheet and bar	do.	4	"	4½
MEAL. Corn,	bbl.	2 38	"	2 56
Corn,	hhd.	11 50	"	12 00
MOLASSES, New Orleans,	gal.	28	"	31
MUSTARD, American,	lb.	16	"	31
NAVAL STORES—Tar,	bbl.	621	"	2 25
Pitch,	do	80	"	1 00
Rosin	do.	55	"	70
Turpentine,	do.	2 75	"	3 25
Spirits Turpentine, Southern,	gal.	38	"	40
OIL, Linseed, American,	do.	67	"	70
Castor,	do.	57	"	65
Lard,	do.	55	"	70
OIL CAKE,	100 lbs.	1 00	"	—
PEAS, Field,	bush.	1 25	"	1 50
PLASTER OF PARIS,	ton,	2 75	"	3 00
Ground, in bbls.,	of 350 lbs.	1 12	"	1 25
PROVISIONS—Beef, Mess,	bbl.	8 00	"	10 00
Prime,	do.	5 50	"	6 50
Smoked,	lb.	6	"	8
Rounds, in pickle,	do.	4	"	6
Pork, Mess,	bbl.	12 00	"	13 50
Prime,	do.	9 00	"	10 62
Lard,	lb.	7½	"	8½
Bacon sides, Smoked,	do.	3	"	4
In pickle,	do.	3	"	4
Hams, Smoked,	do.	6	"	10
Pickled,	do.	4	"	7
Shoulders, Smoked,	do.	5	"	6½
Pickled,	do.	4½	"	5
RICE,	100 lbs.	3 12	"	4 00
SALT,	sack,	1 35	"	1 45
Common,	bush.	20	"	30
SEEDS—Clover,	lb.	6	"	7
Timothy,	7 bush.	10 00	"	12 00
Flax, rough,	do.	8 50	"	9 00
clean,	do.	11 00	"	12 00
SODA, Ash, cont'g 80 per cent. soda,	lb.	3	"	3
Sulphate Soda, ground,	do.	1	"	—
SUGAR, New Orleans,	do.	5	"	8
SUMAC, American,	ton,	25 00	"	27 50
TALLOW,	lb.	6½	"	7½
TOBACCO	do.	2	"	6
WHISKEY, American,	gal.	21	"	22
WOOL, Saxony,	lb.	35	"	50
Merino,	do.	30	"	35
Half-blood,	do.	25	"	30
Common,	do.	20	"	25

NEW YORK CATTLE MARKET—June 23.

At Market, 1100 Beef Cattle (875 from the South), 80 Cows and Calves, and 1500 Sheep and Lambs.

PRICES.—Beef Cattle—The market last week, was unusually dull, and the transactions were smaller than they have been for three months. Buyers were very backward, and of the comparatively small offering, 300 remain unsold. Holders, notwithstanding, still hold out for, and in some instances have succeeded in obtaining last week's prices, which we accordingly presume—for inferior and middling qualities $5a5.50; superior $6.75, and a few extra at $7.

COWS AND CALVES.—Prices have experienced a considerable declino. We quote $18a24 to 28.

SHEEP AND LAMBS.—Sheep $1.25a$2.50 to $3.25, a decline of of 5 cents on the prices of last week.

REMARKS.—This is a dull month, and business transactions limited. *Ashes* in fair request. *Cotton* languid. Exported from the United States since September last 1,916,066 bales; same time last year, 1,425,383; same time year before, 1,884,948. *Wheat* a good supply. *Rye* and *Corn* scarce at this moment. *Hay* brisk and has advanced. *Beef* and *Pork* firm. *Rice* the same. *Molasses* and *Sugar* dull. *Tobacco* in fair demand. *Wool* quiet.

Money is very plenty at 4½ to 6 per cent. in the city.

Stocks are in no great demand.

The Weather has changed at last with us, from very dry to showery, and everything looks green and fresh again. It has been exceedingly hot the past month. The Wheat and Rye harvest is already over South of us, and proves better than was anticipated. Oats and Barley are looking well, though the straw is short. Corn is growing rapidly and promises to be a fair crop. Roots are improving, but it is too early to decide what the crop of these will be. Fruit is reasonably abundant. Cotton, Rice, and Tobacco appear well. There are many complaints as usual; but upon the whole we shall look for a full average of crops for everything except hay, and this is not cut short north of 41°.

NOTICE TO FARMERS AND GARDENERS.—The Board of Agriculture of the American Institute have appointed a committee for the purpose of examining field crops growing in the vicinity of New York. The committee are ready to visit any farms or fields, and report upon their merits to the managers of the next Annual Fair, to be held at Niblo's Garden in October next, and will award premiums on the same. Application to be made to T. B. Wakeman, Esq., Corresponding Secretary, at the Repository of the American Institute.

EXOTIC, NURSERY, AND HORTICULTURAL GARDENS,

Flushing, L. I., near New York.

The subscribers having established a Nursery with the above title, with the determination of conducting it in the very *best* manner in all its departments, offer for sale, *at reasonable prices*, a *select* variety of

FRUIT AND ORNAMENTAL TREES,

Hardy Shrubs, Herbaceous Plants, Grape Vines of all the best kinds, superior Strawberries, Fastolff Raspberry, Gooseberries, &c.

BULBS AND TUBERS, SUPERB CARNATIONS, DAHLIAS, &c.

AND A MOST EXTENSIVE AND CHOICE COLLECTION OF

GREEN-HOUSE AND STOVE PLANTS,

Embracing everything *new* and *beautiful* in that department, personally selected in Europe during the past summer, of *ROSES AND CAMELLIAS.*

We have a very choice collection of the former, full 1,000 varieties, and of the latter nearly 300, all in fine order.

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"	"	50	"	"	"	29	"
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"	"	50	"	N. E.	"	39	"
"	"	50	"	S. E.	"	58	"
"	Sub. 1	83	"		of lot	76	"
"	" 7	30	"		"	"	"
"	Survey	50	"	N. W. cor. of	"	98	"
"	State	100	"	S. E. " of	"	65	Virgil
"	Survey	50	"	N. E.	"	68	"
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